

# **EXHIBIT A**

IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF TEXAS  
(HOUSTON DIVISION)

KAREN TAYLOR,

Plaintiff,

v.

TASER INTERNATIONAL, INC.,

Defendant.

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CASE NO.: 4:17-CV-00673

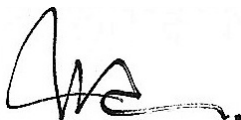
JURY TRIAL DEMANDED

**DECLARATION OF JEFFREY HO, M.D.**

I, Jeffrey Ho, being of legal age and under the penalties of perjury, state as follows:

1. I am a competent adult and have personal knowledge of the following facts, or believe them to be true based on information and belief. Facts about which I do not have personal knowledge are of the type reasonably relied upon by experts in this field and have probative value to me in rendering my opinions. I am not an attorney and do not have any legal training.
2. Attached hereto is a true and accurate copy of my expert report in the above captioned litigation.
3. The report summarizes my analysis and findings and includes a statement of my opinions. The report also includes data and other information considered by me in forming my opinions and sets out my qualifications (including my CV).
4. My opinions are expressed to a reasonable degree of professional certainty and probability. I do reserve the right to change or modify my opinions.
5. I affirm under the penalties of perjury that the foregoing statements are true and correct.

2/2/2018  
Date



Jeffrey Ho, M.D.

## **Introduction**

I have been retained as an expert medical consultant on behalf of the Defendant for this case. I have been asked to provide my opinion about the effectiveness of the electrical output on a human from a TASER<sup>®</sup> X2<sup>™</sup> Conducted Electrical Weapon (CEW or device), and its effectiveness in comparison to the TASER X26<sup>™</sup> CEW which is a previous generation CEW. My opinions offered in this case are rendered to a reasonable degree of medical certainty or probability.

I reserve the right to supplement or modify this statement if and when I acquire additional relevant information prior to the time of trial.

## **Qualifications:**

I am a practicing, residency trained and board-certified emergency medicine physician and hold an academic appointment at the University of Minnesota Medical School. I am a Fellow of the American College of Emergency Physicians and of the American Academy of Emergency Medicine. I also hold a full-time peace officer license in the State of Minnesota and currently work as a deputy sheriff. I have previous experience as a firefighter/emergency medical technician (EMT) and have fellowship training specifically in the area of emergency medical services (EMS)/pre-hospital emergency care. I have 9 years of reserve military service as a medical corps officer and I currently serve as a medical director to several EMS agencies in the upper Midwest. I am also an expert medical research consultant on human physiology in association with TASER device applications and maintain certification as a TASER CEW Instructor. I currently

serve as the medical director to Axon Enterprise, Inc. (Axon) (formerly known as TASER International, Inc. (TASER)) My areas of expertise include research in the areas of sudden and unexpected injuries and death in law-enforcement related incidents, and the physiologic effects of CEWs. I have conducted numerous research studies on these devices and have had my work published in peer-reviewed medical journals and have presented at national/international meetings and assemblies on these topics. I have authored chapters in and edited 2 textbooks on these topics. I have been allowed to provide expert opinions on TASER CEW effects on human subjects in other legal cases both nationally and internationally. My opinions in this case are based on the above qualifications. In addition to these qualifications, I refer interested persons to my attached curriculum vitae (CV) for further qualifications and information.

**Publications in the last 10 years:**

Please refer to my attached CV for a listing of publications.

**Compensation:**

Hourly billing rate: \$400.00 per hour for time spent actively working on this case (reviewing, writing, testifying, providing deposition) regardless of location.

Travel Billing Rate: \$400.00 per hour during business hours (8a-5p) and \$200.00 per hour during non-business hours (5p-8a) for travel time for purposes of business related to this matter. Travel expenses are to be reimbursed. Domestic first class travel will be allowed for commercial travel over 6 hours from home station.

Other: I reserve the right to charge a flat fee of \$1,500.00 for any scheduled work on this case (deposition, testifying) that is cancelled within 10 calendar days of confirmation.

**Exhibits to Be Used at Deposition or Trial**

Exhibits to be used at deposition or trial include, but are not limited to: all referenced documents and other resources listed herein or in each particular document; videos of CEW research; videos of resistive subjects; explanatory and/or demonstrative charts and/or graphs; PowerPoint® or Keynote® presentations regarding CEWs; research equipment; TASER Training CDs/DVDs (or any portion thereof), and demonstrative aids and devices.

**Previous testimony or deposition as an expert within the last 4 years:**

1. (LA) Prunty v. Louisiana Dept. of Public Safety (December 2017-deposition; expert for the defense, disability worker compensation complaint)
2. (WA) Berger v. Spokane County, et al (June 2017-court testimony; expert for the defense, civil wrongful death complaint)
3. (WA) Hayes v. Spokane County, et al (January 2017-deposition; expert for the defense, civil wrongful death case)
4. (WA) Berger v. Spokane County, et al (July 2016-deposition; expert for the defense, civil wrongful death case)
5. (CO) Booker v. City and County of Denver, et al (October 2014-court testimony; expert for the defense, civil excessive force and wrongful death complaint)
6. (MI) Mitchell v. TASER International (January 2014-deposition; expert for the defense, civil wrongful death case)

**Reviewed Documents Include:**

1. Plaintiff's First Amended Complaint;
2. TASER's Answer to the Amended Complaint;
3. Plaintiff's Initial Disclosure Statement dated May 31, 2017;
4. Plaintiff's First Supplemental Disclosure Statement dated December 5, 2017;
5. Plaintiff's Second Supplemental Disclosure Statement dated January 12, 2018;
6. Expert Report of Mark P. Jones, Ph.D. dated October 27, 2017;
7. Expert Report of Michael Leonesio dated October 27, 2017;
8. Expert Report of Wayne C. McDaniel, Ph.D. dated October 27, 2017;
9. TASER's Expert Report of Bryan Chiles, dated December 8, 2017  
(TASER\_TAYLOR 017395-17425);
10. TASER's Expert Report of Richard Luceri, dated December 7, 2017  
(TASER\_TAYLOR 017426-17453);
11. TASER's Expert Report of John Peters, Jr., dated December 8, 2017  
(TASER\_TAYLOR 017478-17563);
12. TASER's Expert Report of Dorin Panescu, dated December 14, 2017  
(TASER\_TAYLOR 018266-18306);
13. June 2009 Testing Materials (TASER\_TAYLOR 021050-21054);
14. February 2011 Testing Materials (TASER\_TAYLOR 021055-21056);
15. March 2011 Testing Materials (TASER\_TAYLOR 021057-21088);
16. July 2011 Testing Materials (TASER\_TAYLOR 021089-21095);
17. January 2013 Testing Materials (TASER\_TAYLOR 021096-21155);
18. April 2013 Testing Materials (TASER\_TAYLOR 021156-21194);
19. August 2013 Testing Materials (TASER\_TAYLOR 021195-21234); and

20. Declaration of Magne Nerheim (TASER\_TAYLOR 017454-17477).

## **EXPERT REPORT**

### Testing History

I have been involved in human testing of TASER CEWs since 2004. For the first 5 years of my work in this area, my lab team and I primarily tested effects of the X26 CEW on internal human physiology. In mid-2009, we began testing on a new generation of “Smart Weapon” that came to be known as the TASER X3™ CEW. The TASER X2 CEW has incorporated the same electrical waveform and charge metering technology as the X3 CEW.<sup>1</sup>

In mid-2009, my lab team began to examine the concept of CEW effectiveness. At least subjectively, we were of the opinion that the X26 CEW had a good reputation for reliable effectiveness (incapacitation) and we were asked to evaluate the next generation of CEWs to determine if their effectiveness was comparable and if there was any merit to proposed design changes (such as reversal of polarity, self-metering charge, changing overall charge, etc.). This type of work had not been described in the literature before so we began to design study methods to evaluate this. My team began to call this type of testing “Motivation Testing” because it relied on the human subject to be “motivated” to accomplish a goal in order for us to determine if the CEW was able to prevent this accomplishment or not.

Between 2009 and 2013, my lab team performed several experiments to help us focus in on areas of research that might prove to enhance CEW effectiveness. These tests involved the X3, X2 and/or X26 CEWs. A summary of these tests follows:

- X3 CEW exposure of 17 subjects with charge output of 50 and 70

microcoulombs ( $\mu\text{C}$ ) using 3 and 4 dart combinations of connection points. This was a gross observation study of effectiveness. We learned from this that a charge output of 50  $\mu\text{C}$  did not reliably incapacitate subjects and that a charge output near 70  $\mu\text{C}$  appeared to be reliable for incapacitation. We also learned that gross observation did not appear to show differences between 3 or 4 connection points.

- X3 CEW exposure of 9 subjects with a newly designed charge diffusion dart.

This was a gross observation study of effectiveness. We learned from this that the proposed dart design did not grossly appear to have an advantage over the current dart. We also began to realize that we needed to develop a more detailed method of evaluating effectiveness because gross observation did not provide adequate detail for us to understand the phenomenon of incapacitation.

- X2 vs. X26 CEW exposure on 13 subjects using a suspended “kill switch”

motivation test method. This was more than a gross observation test and was our first attempt to gather more detail related to effectiveness. In this test, while being exposed to CEW discharge, the subject was required to crawl across the padded floor to reach a switch 5 feet away from them and suspended 3 feet off the



ground. We learned that this method was not adequate to evaluate true motivation and effect, as all 13 subjects immediately gave up when current was applied.

•X26 CEW exposure on 30 subjects using our current motivation test method.<sup>2</sup>

Because the above study method seemed inadequate, we refined our study method to our current standard including having the subject stand with a goal of moving toward a target while receiving current and utilizing high-speed, high definition video. This refined method was deemed adequate to test true effectiveness through slow-motion review and enabled us to begin evaluating small changes such as varying probe spread to determine the minimum probe spread distance for reliable incapacitation. This study was peer-reviewed and published.

•X2 vs. X26 CEW pilot exposure on 4 subjects using the current motivation test method. Once we determined the minimum probe spread distance for reliable incapacitation (12 inches) for the X26 CEW using a reliable test method, we progressed to comparative testing with the X2 CEW. We performed an initial pilot study of 4 persons (8 CEW exposures, 1 exposure with each CEW). The findings from this pilot study showed that the X2 had comparable effectiveness at similar probe spread distances. This pilot work was published and presented at a U.S. and an international scientific conference.<sup>3,4,5</sup>

•Continued X2 vs. X26 motivation testing. 42 subjects underwent the same test as the pilot described above with similar findings to the pilot study and validated our

conclusions from the pilot study. This more extensive work has not been presented or published because it did not yield different results than our previous X26 CEW published study. We, therefore, did not deem it noteworthy for peer-review publication.

•Continued X2 vs. X26 motivation testing examining the variables of “air gaps” and polarity. 91 subjects have received exposures comparing the 2 CEWs to see whether reversing polarity and/or inserting an air gap of varying distance at the point of connection (to simulate a disconnect due to loose clothing) affected functionality. We found that polarity reversal did not seem to have a discernible effect and that both CEWs performed in similar fashion with the air gaps in place.

#### Risk and Definition of Incapacitation

The goal of the manufacturer has continually been to explore ways to make the CEW physiologically safer for suspects while balancing optimal incapacitation performance for the safety of the user. This, however, is with full recognition that CEWs are force tools used in situations of violence so regardless of ideal performance, these uses are never risk free for any of the individuals involved. Recognizing this, the balancing of safety with effectiveness has been a major focus of my research team.

Striking this balance has necessitated my research team to work closely with the Axon engineers. As the engineers have continually created new and enhanced circuitry with additional features, my research team attempts to determine whether or not the proposed

changes translate into practical improvements. The practicality of safety (generally deemed after a decade of human research to now be defined by cardiac effects) has been largely studied on a swine model using ultrasonography and a grid for precise application placement measurement.<sup>6</sup> The practicality of effectiveness has been largely studied on humans using a motivation model with slow motion videography for analysis.<sup>2</sup> Both study methods were developed by my lab team and have remained the default standards for CEW product evaluation.

In general, CEWs (both X26 and X2) are primarily designed to provide incapacitation by disrupting the ability of the recipient to voluntarily control their affected skeletal muscles. A secondary effect is that the CEW provides a sensory nerve stimulus that is unpleasant to people with normal perception and is used to encourage them to comply. A third effect is to achieve compliance by presence, brandishing, LASER painting, or arcing only. In order to achieve incapacitation from a CEW, the points of electrical contact must be of sufficient separation to recruit enough skeletal muscle to cause inability to control contiguous muscle groupings. This inability to voluntarily control skeletal muscle is what leads to incapacitation. The current literature for the X26 CEW supports that incapacitation is reliably achieved at distances of 12 inches or greater.<sup>2</sup>

In determining this optimal separation, it was noted that in some circumstances, the human volunteers would demonstrate full-body rigid lock-up while others could not voluntarily control their movements but they were not fully rigid. This led to examination of why this would be but it also led to discussion and exploration on what the definition

of “incapacitation” was. Depending on who we surveyed, we received differing opinions and it became clear that some people perceived incapacitation to be full-body rigidity while others felt that incapacitation was less defined and was a state that could be met as long as the person could not reliably control voluntary movement (e.g., could not continue to perform a dangerous movement or could not maintain upright balance and continue a forward attack but may retain ability to flail their feet or hands).

It also became apparent that the persons who had the most concrete expectation on incapacitation (full-body rigidity) were those involved in training assignments who were experienced in performing many probe deployments to the back of the trainee (the most common application site for a training exposure) from several feet away. From a scientific standpoint, the full-body rigid lock-up reliably seen in training from a back shot also made sense because there is much more skeletal muscle to recruit in the back than in the front of the body and the muscles of the back are primarily used for maintaining upright posture.

Based on this, the medical team did not think that a reasonable definition of incapacitation was uniform, full-body rigidity and came up with a reasonable and practical definition of “incapacitation” when the term is used in the context of CEW use. This conceptual definition globally is: Preventing subjects from achieving their goal. This can also be defined as: Causing loss of sufficient voluntary muscle control leading to inability to control their actions. This concept recognizes that the goals of persons that are undergoing a CEW exposure may be variable including but not limited to forward

advancement, committing a violent physical act upon someone, running away, threatening another by posture or action, etc. This definition has become the standard by which we judge the effectiveness of CEW performance. It is important to recognize that incapacitation is not defined by a specific body posture or action.

To be fair, another variable that probably led to the unreasonable expectation that incapacitation should look like full body rigidity (and something that my team has noticed anecdotally over the years) is subject body habitus. We have learned that lean subjects with lower amounts of body fat (such as lean, muscular, athletic body types) tend to exhibit much more full-body rigidity than more obese body types. Intuitively, this makes sense since rigid lock-up is a large function of the available skeletal muscle that can be recruited to contract. In persons with higher amounts of fat (a known insulator of electrical current), CEW current application would have a more difficult time reaching the deeper skeletal muscle layers and full-body rigidity is seen less often. However, in my research, even subjects that would be considered obese were incapacitated when the 12-inch probe spread threshold was met.

#### Measuring the Probability of Incapacitation

From our 2011 research, my research team was able to determine a reasonable standard to measure incapacitation using methodology able to be reproduced by other entities if desired. The methods and the standards are described in the literature<sup>2,5</sup> and remain the only published work examining CEW effectiveness to date. Based on this, it continues to

be used by my team in evaluating current and future CEWs and much of this work remains unpublished.

In summary, the above work is a reliable method of motivating human volunteers to attempt to achieve a goal with proscribed CEW exposures using varying probe separation distances. The exposures have been done on a wide variety of human volunteers (different genders, ages, body habitus types, and past medical histories). The exposures were video recorded with high-definition technology and were later viewed and scored using 2 separate expert panels and 2 separate scoring criteria to evaluate incapacitation. These scoring systems examined incapacitation from both a detailed physiologic response (scientific expert panel) and a practical field perspective (law enforcement professional panel).

The initial work establishing this method was done primarily on the X26 CEW and was the first to determine the minimum probe spread for reliable incapacitation. Since that time, work has continued using this same method on newer CEWs to compare effectiveness in a head-to-head fashion against the X26 CEW. The pilot work has been publicly presented and published and the follow-on work has validated the pilot study findings. The results demonstrate similar effectiveness for the newer CEWs. A goal of this work has been to determine and verify a product effectiveness minimum standard for the manufacturer.

Because incapacitation is a function of probe-spread distance, an understanding of how probe spread distance is achieved may be helpful. In a typical duty X26 CEW cartridge, the probes are deployed at an 8° angle of separation. This means that the closer the front of the CEW cartridge is to the target, the closer the separation distance of the probes will be when they contact the target and vice versa. The 12-inch probe separation distance for reliable incapacitation described in my team's work translates into a distance from the front of the CEW cartridge to the skin surface of the subject of approximately 7 feet. Our work has demonstrated that when probe deployment occurs at less than 7 feet from the subject with either the X26 CEW or X2 CEW, incapacitation cannot be guaranteed.

#### Testing Results

The TASER X2 CEW and the TASER X26 CEW have very similar incapacitation characteristics when compared to each other. The initial comparison work utilized 4 human subjects with 8 separate exposures and the minimum probe separation of 12 inches for reliable incapacitation was noted for both devices. The follow-on work with 42 subjects verified these initial findings.

At probe separation distances between 6-9 inches, both devices had variable performance. When compared to each other, the X2 CEW appeared to demonstrate greater regional effect (visually appeared to cause broader areas of muscle contracture) than the X26 CEW but clinically, both CEWs performed equally and did not demonstrate the ability to create reliable incapacitation of a motivated human subject.

Probe separation distances less than 6 inches were not tested for comparison because neither device is designed to incapacitate within that parameter.

## CONCLUSION

In head-to-head testing, both the newer X2 and older X26 CEWs create similar patterns of human incapacitation with probe distances of 12 inches or greater. At probe distances under 12 inches, the results for both devices are not consistently reliable to ensure incapacitation. Officer safety warnings, education, and tactics have been designed to take this into account for both CEW types.

All statements and opinions within this report are to a reasonable degree of medical certainty or probability at a minimum unless otherwise stated.

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<sup>1</sup> Report of Magne Nerheim, December 8, 2017.

<sup>2</sup> Ho J, Dawes D, Miner J, Kunz S, Nelson R and J Sweeney. Conducted electrical weapon incapacitation during a goal-directed task as a function of probe spread. *Forensic Sci Med Pathol*, 2012;8:358-366.

<sup>3</sup> Ho J, Dawes D, Kunz S, Miner J, Hinz A and J Sweeney. "Pilot Comparison of Conducted Electrical Weapon Effectiveness: Old vs. New Technology". 64th Annual Scientific Meeting. American Academy of Forensic Sciences; Volume XVII. February 23, 2012; Atlanta, GA. 205-206.

<sup>4</sup> Ho JD, Dawes DM, Kunz SN, and JR Miner. "Comparison of Conducted Electrical Weapon Safety and Effectiveness." 9<sup>th</sup> European Symposium on Non-Lethal Weapons. Fraunhofer Institut Chemische Technologie. Karlsruhe: DWS Werbeagentur und Verlag GmbH, 2017

<sup>5</sup> . Ho JD. "Comparison of Conducted Electrical Weapon Safety and Effectiveness: Old vs. New Technology". Presented at The 9<sup>th</sup> European Symposium on Non-Lethal Weapons, Ettlingen, Germany, May 9, 2017.

<sup>6</sup> Dawes DM, Ho JD, Moore JC and JR Miner. An evaluation of two conducted electrical weapons and two probe designs using a swine comparative cardiac safety model. *Forensic Sci Med Pathol*, 2013;9:333-342.



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jeffrey.ho@hcmcd.org

## Jeffrey D. Ho, M.D., FACEP, FAAEM

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### *EDUCATION:*

#### CERTIFICATE – Physician Leadership Academy

Hennepin Healthcare System  
Minneapolis, Minnesota  
April, 2013 – December, 2013

#### DEGREE - Associate of Science (Criminal Justice/Law Enforcement)

Inver Hills Community College  
Inver Grove Heights, Minnesota  
March, 2005

#### FELLOWSHIP – Emergency Medical Services/Prehospital Care

Hennepin County Medical Center  
Minneapolis, Minnesota  
July, 1995 – June, 1996

#### RESIDENCY – Emergency Medicine

Hennepin County Medical Center  
Minneapolis, Minnesota  
June, 1992 – June, 1995

#### DEGREE – Doctor of Medicine

Loma Linda University School of Medicine  
Loma Linda, California  
August, 1988 – May 1992

#### DEGREE – Bachelor of Science (Biology/Zoology)

Loma Linda University College of Arts and Sciences  
Riverside, California  
September, 1984 – June, 1988

### *HONORS and AWARDS:*

#### January, 2017 – Sheriff's Office Service Award

Meeker County Sheriff's Office, Litchfield, Minnesota  
\*Awarded for 10 years of dedicated public safety service.

#### September, 2016 – Outstanding Reviewer Award

Academic Emergency Medicine, Des Plaines, Illinois  
\*Awarded to reviewers that meet quality and commitment review standards

#### September, 2016 – Best 2015 NAACT Platform Presentation Team Award

American Academy of Poison Control Centers meeting, Boston, Massachusetts  
\*Awarded for "Ketamine vs. Haldol for Severe Prehospital Agitation" study

#### August, 2016 – Hennepin SARS Highest Quality Biospecimen Team Award

UNC (NIH) Women's Health Study, Chapel Hill, North Carolina  
\*Awarded to the team with the best biologic research specimen submissions

### *HONORS and AWARDS (continued):*

**February, 2016 – Best Research Poster Presentation Award**

2016 Singapore Emergency Medicine Society Annual Meeting

\* Awarded for presentation of original research on EMS documentation

**November, 2014 – “Top Gun” Award**

Meeker County Sheriff's Office, Litchfield, Minnesota

\*Awarded for receiving the highest intra-agency firearm qualification score.

**June, 2014 – Best Emergency Medicine Faculty Core Content Lecture Award**

Hennepin County Medical Center, Minneapolis, Minnesota

\*Selected by the resident physicians for best use of active learning techniques and interactive teaching.

**April, 2012 – ABEM Service Award**

American Board of Emergency Medicine, East Lansing, Michigan

\*Awarded for 8 examinations of service.

**January, 2012 – Sheriff's Office Service Award**

Meeker County Sheriff's Office, Litchfield, Minnesota

\*Awarded for 5 years of dedicated public safety service.

**June, 2011 – Sheriff's Office Achievement Award (2<sup>nd</sup> Award)**

Meeker County Sheriff's Office, Litchfield, Minnesota

\*Awarded annually for commitment to duty, demonstrated professionalism and overall leadership abilities with the Meeker County Sheriff's Office and the community.

**November, 2010 – “Top Gun” Award**

Meeker County Sheriff's Office, Litchfield, Minnesota

\*Awarded for receiving the highest intra-agency firearm qualification score.

**August, 2010 – IACP/Sprint Law Enforcement Research Award**

International Association of Chiefs of Police, Orlando, FL

\*Awarded for project leadership of research of international importance to the law enforcement profession.

**November, 2007-2014 – Pistol Expert Award**

Meeker County Sheriff's Office, Litchfield, Minnesota

\*Awarded annually for mastery and marksmanship during firearm qualification.

**September, 2008 – Sheriff's Office Achievement Award**

Meeker County Sheriff's Office, Litchfield, Minnesota

\*Awarded annually for commitment to duty, demonstrated professionalism and overall leadership abilities with the Meeker County Sheriff's Office and the community. This award included a lifesaving action while on-duty.

**January, 2008 – Rescue Service Award**

Minneapolis Police Department, Minneapolis, Minnesota

\*Awarded for scene rescue effort provided during the Interstate 35W bridge collapse.

*HONORS and AWARDS (continued):*

January, 2007 – Top Doctor Award in Emergency Medicine  
11<sup>th</sup> Annual MPLS/St. Paul Magazine, Minneapolis, Minnesota  
\*Presented annually to Twin City physicians upon receiving top nomination by their peers.

September, 2006 – Mark Rathke, MD Lecture Award  
21<sup>st</sup> Annual MN EMS Medical Director Conference, Alexandria, Minnesota  
\*Presented annually to a distinguished lecturer in the area of local EMS in honor of a previous EMS physician who served the profession with dedication.

April, 2005 – Outstanding Accelerated Program Student Award  
Inver Hills Community College, Inver Grove Heights, Minnesota  
\*Awarded by the college faculty in recognition of outstanding academic achievements in the accelerated law enforcement training program.

May, 2003 – Archibald Bush Foundation Medical Fellowship  
Archibald Bush Foundation, St. Paul, Minnesota  
\*Competitively awarded as a career enhancement grant to allow me to pursue cross-training in law enforcement.

June, 2002 – Ernest Ruiz Teaching Award  
Hennepin County Medical Center, Minneapolis, Minnesota  
\*Awarded by the senior residents in Emergency Medicine in recognition of outstanding teaching contributions within the residency training program.

May, 2002 – Chief's Award of Merit  
Police Department, Minneapolis, Minnesota  
\*Awarded in recognition of outstanding leadership provided to the tactical paramedic program of the Emergency Response Unit.

December, 2001 – Service Award  
Police Department, Minneapolis, Minnesota  
\*Awarded in recognition of service to the Emergency Response Unit.

January, 2000 – Meritorious Service Award  
Fire Department, Minneapolis, Minnesota  
\*Awarded in recognition of meritorious and heroic service during the extrication and rescue of an accident victim resulting in the saving of a human life.

November, 1999 – Fellow of the American College of Emergency Physicians  
ACEP Annual Meeting, Las Vegas, Nevada  
\*Fellow status is granted only after meeting stringent training, teaching and certification standards.

July, 1997 – Best Oral Presentation of Original Research Award  
National Association of EMS Physicians Annual Meeting, Lake Tahoe, Nevada  
\*Awarded for presentation of a research project conducted during fellowship.

May, 1997 – Award of Recognition  
Dakota County Technical School, Dakota County, Minnesota  
\*Awarded for providing mentorship in emergency medicine to high school students considering health care careers.

*HONORS and AWARDS (continued):*

**June, 1995 – James Andersen Scholarship Award**

Hennepin County Medical Center, Minneapolis, Minnesota

\*Annually awarded to a single senior resident who demonstrates excellence in leadership and clinical abilities in emergency medicine.

**March, 1995 – University of Minnesota School of Medicine Resident Physician Distinguished Teaching Award Nominee**

University of Minnesota School of Medicine, Minneapolis, Minnesota

\*Nominated by the University of Minnesota senior medical students for excellence in academic and clinical teaching.

**June, 1994 – Emergency Medicine Chief Resident**

Hennepin County Medical Center, Minneapolis, Minnesota

\*Selected by my colleagues to maintain and promote intra and interdepartmental leadership, rapport and education through a wide variety of administrative responsibilities.

**February, 1993 – Resident Association Representative Elect**

Hennepin County Medical Center, Minneapolis, Minnesota

\*Elected by my peers to serve a 2 year term to represent my residency at the national level to the Emergency Medicine Residents Association of the American College of Emergency Physicians.

**May, 1991 – California Medical Association Student Representative Elect**

Loma Linda University School of Medicine, Loma Linda, California

\*Elected by a state planning agency to serve on the Association's Committee for Emergency and Disaster Preparedness.

**March, 1989 – CIBA/GEIGY Award**

Loma Linda University School of Medicine, Loma Linda, California

\*Awarded annually to a medical student for outstanding community service in medical related projects.

**May, 1988 – Cum Laude Graduate**

Loma Linda University College of Arts and Sciences, Riverside, California

**May, 1985 through May, 1988 – Dean's List of Academic Achievement**

Loma Linda University College of Arts and Sciences, Riverside, California

**January, 1988 – Carnation Corporation Scholarship**

Loma Linda University College of Arts and Sciences, Riverside, California

\*For providing community service while maintaining standards of academic excellence.

**January, 1986 – Howard O. Welty Scholarship**

Loma Linda University College of Arts and Sciences, Riverside, California

\*For achieving standards of academic excellence.

**April, 1984 – Loma Linda University Academic Scholarship**

Orangewood Adventist Academy, Garden Grove, California

\*For academic excellence prior to entering undergraduate study

***ACADEMIC APPOINTMENTS:***

June, 2014 through Present – Professor of Emergency Medicine  
University of Minnesota School of Medicine  
Twin Cities Campus, Minneapolis, Minnesota

June, 2007 through May, 2014 – Associate Professor of Emergency Medicine  
University of Minnesota School of Medicine  
Twin Cities Campus, Minneapolis, Minnesota

July, 1996 through May, 2007 – Assistant Professor of Emergency Medicine  
University of Minnesota School of Medicine  
Twin Cities Campus, Minneapolis, Minnesota

***CLINICAL EXPERIENCE:***

July, 1996 through Present – Attending Faculty, Emergency Medicine  
Hennepin County Medical Center (Level I Trauma Center)  
Hennepin Faculty Associates, Minneapolis, Minnesota

June, 1996 through June, 1998 – Courtesy Staff Physician, Emergency Medicine  
Ridgeview Medical Center, Waconia, Minnesota

November, 1993 through June, 1997 – Courtesy Staff Physician, Emergency Medicine  
District Memorial Hospital, Forest Lake, Minnesota  
United Hospital, St. Paul, Minnesota  
Northfield Hospital, Northfield, Minnesota  
Emergency Practice Associates, Faribault and Hibbing, Minnesota

***MEDICAL DIRECTOR EXPERIENCE:***

July, 2014 through Present – Chief EMS Medical Director  
Hennepin EMS, Minneapolis, Minnesota  
\*Direct an urban, third-service based paramedic program of 150 personnel.

July, 2014 through Present – Medical Director  
Minneapolis Fire Department, Minneapolis, Minnesota  
\*Direct an urban, EMT first response agency of 600 personnel.

April, 2014 through Present – Medical Director  
Hennepin County Forensic Nurse Examiner Team  
Minneapolis, Minnesota  
\*Direct a hospital based forensic nurse examiner team.

November, 2012 through Present – Medical Director  
Hennepin Health System Department of Security  
Minneapolis, Minnesota  
\*Direct a hospital security based EMS program of 60 personnel.

November, 2009 through Present – Medical Director  
Meeker County Sheriff's Office, Minnesota  
\*Direct a law enforcement based EMS program of 70 personnel.

***MEDICAL DIRECTOR EXPERIENCE (continued):***

July, 2009 through Present – Medical Director  
TEMPO™ Course (Tactical Emergency Medical Peace Officer Course)  
Minneapolis, Minnesota  
\*Direct a program of EMS instruction specific to law enforcement personnel.

October, 2006 through July, 2007 – Expert Medical Consultant  
City of Oakland, California  
\*Provide a comprehensive report on the human effects of conducted electrical weapons for the city administration as they move to implement these devices into their police department.

April, 2006 through 2009 – Medical Director  
Fire Department, St. Louis Park, Minnesota  
\*Direct a fire-service based EMS program of 30 personnel.

March, 2006 through 2012 – Deputy Medical Director  
Minnesota Task Force-1 Urban Search and Rescue Team, Minneapolis, Minnesota  
\*Provide leadership, operational ability and expert medical advice for a statewide specialized rescue team.

June, 2009 through Present – Medical Director  
August, 2004 through June, 2009 – Expert Medical Consultant  
TASER International, Scottsdale, Arizona  
\*Provide medical direction, research expertise and expert medical advice for a company that manufactures conducted electrical weapons for law enforcement, military and civilian application.

January, 2003 through December, 2003 – Medical Director  
Medevac, Inc., Minneapolis, Minnesota  
\*Provide medical oversight, treatment protocols, standing orders, equipment and product evaluation for a company that provides basic life support instruction, automatic external defibrillator equipment and training and limited event emergency medical services.

September, 2002 through November, 2003 – Chief Medical Officer  
MN-1 Disaster Medical Assistance Team, Minneapolis, Minnesota  
\*Direct and participate on a team of medical personnel tasked for deployment by the Federal Office of Emergency Preparedness to national needs for emergency medical aid.

September, 1997 through May, 2001 – Medical Director & Tactical Physician  
Police Department Emergency Response Unit, Minneapolis, Minnesota  
\*Direct and participate on a team of 10 medical personnel assigned to the SWAT team.

July, 1998 through Present – Director of EMS Fellowship Program  
Hennepin County Medical Center, Minneapolis, Minnesota

May, 1997 through March, 2015 – Medical Director of Public Safety/Paramedic Services  
Fire Department, Edina, Minnesota  
\*Direct a fire-service based paramedic program of 25 personnel.

***MEDICAL DIRECTOR EXPERIENCE (continued):***

July, 1996 through June, 2014 – Associate Medical Director of EMS  
Hennepin EMS, Minneapolis, Minnesota

\*Assist with the direction of an urban, third-service based paramedic program of 150 personnel.

July, 1996 through June, 2012 – Director of Resident EMS Education  
Hennepin County Medical Center, Minneapolis, Minnesota

July, 1996 through Present – Medical Director of Spectator Services  
Hubert H. Humphrey Metrodome, Minneapolis, Minnesota  
\*Direct a stadium first-responder team of 60 personnel.

July, 1996 through July, 1998 – Medical Director of Spectator Services  
Minneapolis Children's Grand Prix, Minneapolis, Minnesota  
\*Directed a fully enclosed race track based first-responder team of 20 personnel.

***OTHER EXPERIENCE:***

December, 2006 through Present – Deputy Sheriff  
Meeker County Sheriff's Office, Meeker County, Minnesota  
\*Responsible for providing law enforcement services and protection of life and property to the surrounding community.

January, 2006 through December, 2006 – Police Officer  
Dassel Police Department, Dassel, Minnesota  
\*Responsible for providing law enforcement services and protection of life and property to the surrounding community.

August, 2016 through Present – Senior Examiner  
August, 2015 through Present – Item Writer  
October, 2005 through August, 2016 – Examiner  
American Board of Emergency Medicine, Lansing, Michigan  
\*Responsible for writing high quality, psychometrically acceptable test questions and for administering the oral examination to candidates pursuing board certification in emergency medicine.

July, 2005 through January, 2007 – Police Officer  
Buffalo Lake Police Department, Buffalo Lake, Minnesota  
\*Responsible for providing law enforcement services and protection of life and property to the surrounding community.

May, 1989 through June, 1990 – Clinic Director  
Social Action Corps Clinic, Rialto, California  
\*Responsible for directing the efficient operation of a student-run medical clinic that provided low cost health care to an indigent population.

February, 1986 through May, 1988 – Fire Apparatus Engineer  
Riverside County Fire Department, Riverside County, California  
\*Provided emergency medical service and fire suppression activities to the surrounding community.

***OTHER EXPERIENCE (continued):***

November, 1984 through February 1986 – Firefighter

Riverside County Fire Department, Riverside County, California

\*Provided emergency medical service and fire suppression activities to the surrounding community.

November, 1984 through May, 1988 – Firefighter

Home Gardens Volunteer Rescue Squad, Home Gardens, California

\*Provided emergency medical and rescue services to the surrounding community on a volunteer basis.

***MILITARY EXPERIENCE:***

June, 1992 through September, 1998 – Army National Guard, Minnesota

Major, Medical Corps

434<sup>th</sup> Main Support Battalion and STARC Detachment 7

Cottage Grove and Minneapolis, Minnesota

Honorable Discharge

May, 1989 through June, 1992 – Army National Guard, California

Second Lieutenant, Medical Service Corps

143<sup>rd</sup> Evacuation Hospital

Los Alamitos, California

Honorable transfer to Minnesota

***Military Awards Earned:***

1. Army Reserve Component Achievement Award (1997)

2. Minnesota State Service Award (1997)

3. Army Award of Accomplishment (1996)

4. Army Service Award (1995)

5. National Defense Service Medal (1993)

6. Humanitarian Service Award (1989)

7. California Medal of Merit (1989)

***ACADEMIC REVIEW EXPERIENCE:***

2016 Journal of Police and Criminal Psychology (Invited Reviewer)

2015 Advances in Emergency Medicine (Invited Reviewer)

2014 – Current Journal of Forensic Medicine and Pathology (Invited Reviewer)

2012-Current Forensic Science International (Invited Reviewer)

2012 Book Review: Stair, RG, Polk DA, Shapiro GL and N Tang. *Law Enforcement Responder-Principles of Emergency Medicine, Rescue, and Force Protection*. Jones and Bartlett, Burlington, MA, 2012. Review published in the American College of Emergency Physician Tactical Section Newsletter, September, 2012.

2011-Current Journal of Forensic and Legal Medicine (Invited Reviewer)

2010-Current Journal of Emergency Medicine (Invited Reviewer)

2010-2011 Journal of Occupational and Environmental Medicine (Invited Reviewer)

2009-Current Prehospital Emergency Care (Invited Reviewer)

2009-Current Academic Emergency Medicine (Invited Commentator)

2008-Current EMS1.com (EMS Medical Director Reviewer of academic content)

2008-Current Academic Emergency Medicine (Invited Reviewer)

2007-2008 Southern Medical Journal (Invited Reviewer)

2007-Current American Journal of Emergency Medicine (Invited Reviewer)



***ACADEMIC TEXT EDITORSHIP:***

Ho JD, Dawes DM and MW Kroll (eds). Atlas of Conducted Electrical Weapons and Forensic Analysis. New York: Springer Science Media, 2012.

Kroll MW and JD Ho (eds). TASER Electronic Control Devices: Physiology, Pathology, and Law. New York: Springer Science Media, 2009.

***ACADEMIC TEXT CHAPTER AUTHORSHIP:***

Ho JD, Dawes DM, Kunz SN, and JR Miner. "Comparison of Conducted Electrical Weapon Safety and Effectiveness." 9<sup>th</sup> European Symposium on Non-Lethal Weapons. Fraunhofer Institut Chemische Technologie. Karlsruhe: DWS Werbeagentur und Verlag GmbH, 2017.

Ho JD. "Tactical Ultrasound" in "Ultrasound in Austere Environments" (ch. 4). Emergency Ultrasound. Ed OJ Ma, J Mateer and M Blaivas. New York: McGraw Hill Professional, 2013.

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Dawes DM and JD Ho. "Conducted Electrical Weapon Deployed Probe Wounds" (ch. 3). Atlas of Conducted Electrical Weapons and Forensic Analysis. Ed. JD Ho, DM Dawes and MW Kroll. New York: Springer Science Media, 2012.

Ho JD and DM Dawes. "Conducted Electrical Weapon Drive Stun Wounds" (ch. 4). Atlas of Conducted Electrical Weapons and Forensic Analysis. Ed. JD Ho, DM Dawes and MW Kroll. New York: Springer Science Media, 2012.

Ho JD, DM Dawes and AF Hinz. "Intermittent Delivery of TASER Device Electric Current as a Method of Secondary Injury Prevention." 6<sup>th</sup> European Symposium on Non-Lethal Weapons. Fraunhofer Institut Chemische Technologie. Karlsruhe: DWS Werbeagentur und Verlag GmbH, 2011.

Ho JD. "TASER Electronic Control Devices: The Maturation of a Best Application Practice for the Technology." 6<sup>th</sup> European Symposium on Non-Lethal Weapons. Fraunhofer Institut Chemische Technologie. Karlsruhe: DWS Werbeagentur und Verlag GmbH, 2011.

Ho JD. "Electrocardiographic Effects of the CEW" (ch. 10). TASER Conducted Electrical Weapons: Physiology, Pathology, and Law. Ed. MW Kroll and JD Ho. New York: Springer Science Media, 2009.

Ho JD. "Serum and Skin Effects of CEW Application" (ch. 11). TASER Conducted Electrical Weapons: Physiology, Pathology, and Law. Ed. MW Kroll and JD Ho. New York: Springer Science Media, 2009.

Moscato R and JD Ho. "Alcohol and the CEW" (ch. 19). TASER Conducted Electrical Weapons: Physiology, Pathology, and Law. Ed. MW Kroll and JD Ho. New York: Springer Science Media, 2009.

**ACADEMIC TEXT CHAPTER AUTHORSHIP (continued):**

Ho J and D Dawes. "Research Update on the TASER Electronic Control Device." 5<sup>th</sup> European Symposium on Non-Lethal Weapons. Fraunhofer Institut Chemische Technologie. Karlsruhe: DWS Werbeagentur und Verlag GmbH, 2009.

Lindquist MD and JD Ho. "Safety and Scene Size-Up" (ch. 9), "Documentation and Communication" (ch. 17), and "Teamwork and Operational Interface" (ch. 52). The Paramedic: A Comprehensive Textbook. Ed. W Chapleau, A Burba, and P Pons. Dubuque: McGraw-Hill Higher Education, 2008.

Ackermann B and J Ho. "Continuum of Force." (ch. 4) Tactical Emergency Medicine. Ed. R Schwartz, J McManus and R Swienton. Lippincott, Williams and Wilkins, 2007.

Ho J, Johnson M, and D Dawes. "The state of current human research and electronic control devices." Nonlethal Weapons: Fulfilling the Promise? Fraunhofer Institut Chemische Technologie. Karlsruhe: DWS Werbeagentur und Verlag GmbH, 2007.

**PUBLICATIONS:**

Dawes D, Ho J, Vincent AS, Nystrom P and B Driver. The neurocognitive effects of a conducted electrical weapon compared to high intensity interval training and alcohol intoxication – implications for Miranda and consent. *J Forensic Legal Med*, 2017;53:51-57.

Cole JB, Klein LR, Nystrom PC, Moore JC, Driver BE, Fryza BJ, Harrington J and JD Ho. A prospective study of ketamine as primary therapy for prehospital profound agitation. *Am J Emerg Med*, 2017; <https://doi.org/10.1016/j.ajem.2017.10.022>

Ho JD, Dawes DM, McKay EM, Taliencio JJ, White SD, Woodbury BJ, Sandefur MA and JR Miner. Effect of body-worn cameras on EMS documentation accuracy: a pilot study. *Prehosp Emerg Care*, 2017;21:263-271.

Cole JB, Moore JC, Nystrom PC, Orozco BS, Stellpflug SJ, Kornas RL, Fryza BJ, Steinberg LW, O'Brien-Lambert A, Bache-Wiig P, Engebretsen KM and JD Ho. A prospective study of ketamine versus haloperidol for severe prehospital agitation. *Clin Tox*, 2016; <http://dx.doi.org/10.1080/15563650.2016.1177652>

Olives TD, Nystrom PC, Cole JB, Dodd KW and JD Ho. Intubation of profoundly agitated patients treated with prehospital ketamine. *Prehosp Disaster Med*, 2016; DOI: 10.1017/S1049023X16000819

Cole JB, Ho JD and MH Biros. Randomizing patients without consent: Waiver vs exception from informed consent. *Prehosp Disaster Med*, 2016;31:457-458.

Ho JD. Human Trafficking and Sexual Exploitation. Educational Video Series for Emergency Health Care Practitioners. April, 2016 online at: <http://hqmeded.com/human-trafficking-sexual-exploitation/>

Ho JD. Resilience. *Acad Emerg Med*, 2015;22:1361.

Dawes D, Heegaard W, Brave M, Paetow G, Weston B and J Ho. Body-Worn Cameras Improve Law Enforcement Officer Report Writing Accuracy. *J Law Enforcement*, 2015;4:Online at <http://jghcs.info/index.php/l/article/viewFile/410/355>.

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Perkins J, **Ho JD**, Vilke GM and G DeMers. Safety of Droperidol Use in the Emergency Department. *J Emerg Med*, 2015;49:91-97.

**Ho JD**, Ansari RK and D Page. Hand Sanitization Rates in an Urban EMS System. *J Emerg Med*, 2014;47:163-168.

Dawes DM, **Ho JD**, Moore JC, Laudenbach AP, Reardon RF and JR Miner. An Evaluation of Two Conducted Electrical Weapons Using a Swine Comparative Cardiac Safety Model. *Forensic Sci Med Pathol*, 2014;10:329-335.

**Ho JD**, Dawes DM, Chang RJ, Nelson RS and JR Miner. Physiologic Effects of a New Generation Conducted Electrical Weapon on Human Volunteers. *J Emerg Med*, 2014;46:428-435.

**Ho JD**, Dawes DM, Nystrom PC, Moore JC, Steinberg LW, Tilton AK and JR Miner. Effect of Resistance and Simulated Use of Force on Standardized Field Sobriety Testing. *Med Sci Law*, 2015;55:208-215.

Oakley E, **Ho JD**, Johnson V, VanCamp J, Melson T and JL Hick. Splenic Artery Aneurysm: An Important Cause of Hemoperitoneum and Shock. *J Emerg Med*, 2014;46:e65-e67.

**Ho JD**, Dawes DM, Nystrom PC, Collins DP, Nelson RS, Moore JC and JR Miner. Reply to Strote, Lay Person Use of Conducted Electrical Weapon Research. *Forensic Sci Int*, 2014;238:e21-e22.

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Dawes DM, **Ho JD**, Moore JC and JR Miner. Erratum to: An Evaluation of Two Conducted Electrical Weapons and two Probe Designs Using a Swine Comparative Cardiac Safety Model. *Forensic Sci Med Pathol*, 2013;9:343.

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Olson KN, Smith SW, Kloss JS, **Ho JD**, and FS Apple. Relationship Between Blood Alcohol Concentration and Observable Symptoms of Intoxication in Patients Presenting to an Emergency Department. *Alcohol and Alcoholism*, 2013;48:386-389.

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**Ho JD**, Smith SW, Nystrom PC, Dawes DM, Orozco BS, Cole JB and WG Heegaard. Successful management of excited delirium syndrome with prehospital ketamine: two case examples. *Prehosp Emerg Care*, 2013;17:274-279.

White MD, Ready J, Riggs C, Dawes DM, Hinz A and **JD Ho**. An Incident-Level Profile of TASER Device Deployments in Arrest-Related Deaths. *Police Quarterly*, 2013;16:85-112.

**Ho JD** and DM Dawes. Inaccurate Case Series. Letter to the Editor (in response to: DP Zipes. Sudden Cardiac Arrest and Death Following Application of Shocks from a TASER Electronic Control Device. *Circulation*, 2012;125:2417-2422.) *Circulation*, 2013;127:e259.

**Ho JD**, Dawes DM, Sweeney JD, Nystrom PC and JR Miner. Emerging Conducted Electrical Weapon Technology: Is it Effective at Stopping Further Violence? *Acad Emerg Med*, 2012;19:S67-S68.

**Ho JD**, Dawes DM, Nystrom PC and JR Miner. Human Physiologic Effects of a New Generation Conducted Electrical Weapon. *Acad Emerg Med*, 2012;19:S71.

**Ho JD**, Nystrom PC, Calvo DV, Berris MS, Norlin JF and JE Clinton. Prehospital chemical restraint of a non-communicative autistic minor by law enforcement. *Prehosp Emerg Care*, 2012;16:407-411.

Dawes DM, **Ho JD** and JB Cole. RE: Acute agitated delirious state associated with TASER exposure. Letter to the Editor (in response to Feeney C, Vu J and C Ani. Acute agitated delirious state associated with TASER exposure. *J Natl Med Assoc*, 2010;102:1254-1257.) *J Natl Med Assoc*, 2011;103:986-988.

Vilke GM, DeBard ML, Chan TC, **Ho JD**, Dawes DM, et al. Excited delirium syndrome (EXDS): defining based on a review of the literature. *J Emerg Med*, 2012;43:897-905.

**Ho JD**, Dawes DM, Moore JC, Caroon LV and JR Miner. Effect of position and weight force on inferior vena cava diameter-Implications for arrest-related death. *Forensic Sci Int*, 2011;212:256-259.

Dawes DM and **JD Ho**. RE: Myocardial infarction after TASER exposure. Letter to the Editor (in response to Baldwin DE, Nagarakanti R, Hardy S, et al. Myocardial infarction after TASER exposure. *J La State Med Soc*, 2010;162:291-295.) *J LA State Med Soc*, 2011;163:64.

Dawes DM, **Ho JD**, Reardon RF, Strote SR, Nelson RS, et al. The respiratory, metabolic, and neuroendocrine effects of a new generation electronic control device. *Forensic Sci Int*, 2011;207:55-60.

Dawes DM, **Ho JD**, Sweeney JD, Lundin EJ, Kunz SN and JR Miner. The effect of an electronic control device on muscle injury as determined by creatine kinase enzyme. *Forensic Sci Med Pathol*, 2011;7:3-8.

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**Ho JD**, Dawes DM, Reardon RF, Strote SR, Kunz SN, Nelson RS, Lundin EJ, Orozco BS and JR Miner. Human cardiovascular effects of a new generation conducted electrical weapon. *Forensic Sci Int*, 2011;204:50-57.

**Ho JD** and DM Dawes. TASER device-induced rhabdomyolysis is unlikely. Letter to the Editor (in response to: Sanford JM, Jacob GJ, Roe EJ, Terndrup TE. Two patients subdued with a TASER device: cases and review of complications. *J Emerg Med*, 2010;40:28-32.) *J Emerg Med*, 2011;40:68-69.

**Ho J**, Dawes D and J Metzger. Emergency physician watchdogs for law enforcement: If we are the hammer, everything will look like a nail. Letter to the Editor (Use of force reporting commentary by HP Smith, et al.). *Ann Emerg Med*, 2011;57:542-543.

**Ho J**, Miner J, Dawes, D, et al. Reply to Letter (Conflict of interest in research by A O'Brien). *Am J Emerg Med*, 2008;26:504-505.

Dawes DM, **Ho JD**, Reardon RF and JR Miner. The cardiovascular, respiratory, and metabolic effects of a long duration electronic control device exposure in human volunteers. *Forensic Sci Med Pathol*, 2010; 6:268-274.

Dawes DM, **Ho JD**, Orozco B, Vogel E, Nelson R and JR Miner. Human creatine kinase effect from conducted electrical weapons. *Acad Emerg Med*, 2010;17:S77.

**Ho JD**, Dawes D, Johnson V, Karambay J, Kniffin, C, Nelson R and J Miner. Do conducted electrical weapon probes carry bacteria? *Acad Emerg Med*, 2010;17:S134.

Dawes DM, **Ho JD**, Orozco B, Vogel E, Nelson R and JR Miner. The respiratory, metabolic and neuroendocrine effects of a new generation electronic control device. *Acad Emerg Med*, 2010;17:S155.

Heegaard W, Hildebrandt D, Spear D, Chason K, Nelson B and **J Ho**. Prehospital ultrasound by paramedics: results of field trial. *Acad Emerg Med*, 2010;17:624-630.

Dawes DM, **Ho JD**, Reardon RF, Sweeney JD and JR Miner. The physiologic effects of multiple simultaneous electronic control device discharges. *West J Emerg Med*, 2010;11:49-56.

**Ho JD**, Dawes DM, Nelson RS, Lundin EJ, Ryan FJ, et al. Human acidosis and catecholamine evaluation following simulated law enforcement "use of force" encounters. *Acad Emerg Med*, 2010;17:E60-E68.

Moscato R, **Ho JD**, Dawes DM and JR Miner. Physiologic effects of prolonged conducted electrical weapon discharge in ethanol-intoxicated adults. *Am J Emerg Med*, 2010;28:582-587.

**Ho J**, Clinton J, Lappe M, Heegaard W, Williams M and J Miner. Introduction of the conducted electrical weapon into a hospital setting. *J Emerg Med*, 2011;41:317-323.

**Ho J**. Best practices in TASER targeting. *POLICE*, 2010; January issue, 42-47.

**PUBLICATIONS (continued):**

**Ho J**, Dawes D, Cole J, Hottinger J, Overton K and J Miner. Corrigendum to "Lactate and pH evaluation in exhausted humans with prolonged TASER X26 exposure or continued exertion". *Forensic Sci Int*, 2010;195:169.

Bahr J, Lapine A and **J Ho**. The utility of point-of-care carbon monoximetry in fireground emergency medical services rehabilitation operations. *Prehosp Emerg Care*, 2010;14 (suppl 1):#98.

**Ho J**, Dawes D, Heegaard W, Calkins H, Moscatti R and J Miner. Absence of electrocardiographic change following prolonged application of a conducted electrical weapon in physically exhausted adults. *J Emerg Med*, 2011;41:466-472.

Dawes D, **Ho J**, Kroll M and J Miner. Electrical characteristics of an electronic control device under a physiologic load: a brief report. *PACE*, 2010;33:330-336.

Dawes D, **Ho J**, Reardon R and J Miner. Echocardiographic evaluation of TASER X26 probe deployment into the chests of human volunteers. *Am J Emerg Med*, 2010;28:49-55.

**Ho J**, Dawes D, Heegaard W and J Miner. Human Research Review of the TASER Electronic Control Device. *Conf Proc IEEE Eng Med Biol Soc*, 2009;1:3181-3183.

**Ho J**, Dawes D, Lundin E and J Miner. Comparison of Acidosis Markers Associated with Law Enforcement Applications of Force. *Ann Emerg Med*, 2009;54:S40.

Lundin E, Dawes D, **Ho J**, Ryan F and J Miner. Catecholamines in Simulated Arrest Scenarios. *Ann Emerg Med*, 2009;54:S98-S99.

**Ho J**, Heegaard W, Dawes D and J Miner. Introduction of a Conducted Electrical Weapon in a Hospital Setting: The First 8 Months of Use. *J Emerg Med*, 2009;37:209.

Dawes D, **Ho J**, Reardon R and J Miner. The Physiologic Effects of Multiple Simultaneous Electronic Control Device Discharges. *J Emerg Med*, 2009;37:209-210.

Dawes D, **Ho J** and J Miner. The Neuro-Endocrine Effects of the TASER X26 Conducted Electrical Weapon. *J Emerg Med*, 2009;37:210.

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**Ho J**. Can There Be Truth About TASERS? (Commentary) *Acad Emerg Med*, 2009;16:771-773.

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**Ho J**, Dawes D, Bultman L, et al. Prolonged TASER use on exhausted humans does not worsen markers of acidosis. *Am J Emerg Med*, 2009;27:413-418.

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Ho J. Lights and Sirens or Silence? (commentary). *Emerg Med News* 1999; 21:2, 36 .

Ho J, Casey B. Emergency Warning Lights and Sirens (reply to letter). *Ann Emerg Med* 1999; 34:114-115.

Ho J, Casey B. The Time Saved With the Use of Emergency Warning Lights and Sirens While Responding to Requests for Emergency Medical Aid. *Ann Emerg Med* 1998; 32:585-588.

Ho J, Held T, Heegaard W, et al. Automatic External Defibrillation and its Effects on Neurologic Outcome in Cardiac Arrest Patients in an Urban Two-Tiered EMS System. *Prehosp Disaster Med* 1997; 12:284-287.

Green S, Rothrock S, Ho J, et al. Failure of Adjunctive Bicarbonate to Improve Outcome in Severe Pediatric Diabetic Ketoacidosis. *Ann Emerg Med* 1998; 31:41-48.

***GRANT EXPERIENCE:***

August, 2015 – Funding Amount Ongoing (Principle Investigator, Data Collection Site)

Source: University of North Carolina at Raleigh-Durham (NIH)

Project: Women's Health Study

January, 2015 - \$10,900.00

Source: American College of Emergency Physicians

Project: Emergency Department Education on Human Sex Trafficking Awareness

October, 2014 - \$10,600.00

Source: Metropolitan Emergency Services Board

Project: Body-Worn Cameras in EMS

January, 2013 – \$30,000.00

Source: American Academy of Clinical Toxicology

Project: Randomized Double Blind Controlled Study Comparing Haloperidol to Ketamine as Chemical Restraint for “Severe Agitation” in the Prehospital Setting

November, 2012 - \$325,000.00

Source: National Institute of Justice

Project: Stress Biomarkers Among Patients Undergoing Treatment for Excited Delirium and Severe Pain in the Emergency Department (2012-R2-CX-K007)

December, 2011 - \$6,300.00

Source: Metropolitan Emergency Services Board

Project: Use of Intramuscular Ketamine for Excited Delirium Management

***GRANT EXPERIENCE (continued):***

November, 2010 - \$20,000.00

Source: Hennepin Healthcare Foundation

Project: Tactical Emergency Medical Peace Officer Course

October, 2008, 2009, 2010 - \$130,000.00

Source: TASER International, Inc.

Project: Safety Testing of a 40 mm Conducted Electrical Weapon

December, 2007 - \$130,000.00

Source: TASER International, Inc.

Project: Effect of TASER Device Exposure in Combination with Methamphetamine in a Swine Model.

August, 2007 - \$10,000.00

Source: Metropolitan Emergency Services Board

Project: Portable Carbon Monoximetry Utility in a Firefighting Rehabilitation Zone.

May, 2003 - \$56,000.00

Source: Archibald Bush Foundation Medical Fellowship Grant

Project: Physician cross-training in law enforcement to provide emergency medical care in tactical, high-risk environments.

January, 1998 - \$75,000.00

Source: American International Health Alliance

Project: The Effect of Introducing Automatic External Defibrillation Upon the Citizens of an Emerging Country (Republic of Moldova)

December, 1997 - \$7,500.00

Source: Metropolitan Emergency Services Board

Project: The Effect of Utilizing ALS "Jump Cars" Within a Two-Tiered EMS System

October, 1995 - \$4,000.00

Source: Twin Cities Metropolitan 911 Board

Project: The Time Saved With the Use of Emergency Warning Lights and Sirens While Responding to Requests for Emergency Medical Aid in an Urban Environment

***FORMAL PRESENTATIONS:***

October, 2017 – 10<sup>th</sup> European Congress on Violence in Clinical Psychiatry

Dublin, Ireland

Ho J, Coplen M and B Driver. Presentation of the Conducted Electrical Weapon De-Escalates Violence in the Healthcare Setting.

\*Poster Presentation of original research

May, 2017 - Society for Academic Emergency Medicine Annual Meeting

Orlando, FL

McCarthy P, Brown A, Nystrom P and J Ho. Impact of Community Paramedic Program on Health Service Utilization

\*Oral Presentation of original research

March, 2017 – World Academy of Science, Engineering and Technology

Singapore

***FORMAL PRESENTATIONS (continued):***

Ho J, Joing S, Nystrom P, Heegaard W, Hart D, Plummer D and J Miner. Body-Worn Camera Use in the Emergency Department: Patient and Provider Satisfaction

\*Poster Presentation of original research

May, 2017 – Society of Biological Psychiatry 2017 Annual Meeting  
Jacksonville, FL

Maltez B, Sullivan J, Soward A, D'Anza T, Bell K, Galloway L, Lechner M, Gieger-Sedgwick A, Buchanan J, Ho J, Rossi C, Hurst K, Riviello R, Corzine A, Moriarty T and SA Mclean. Somatic Symptoms Historically Termed “Post-Concussive” are Common in the Weeks after Sexual Assault but Unrelated to Head Injury.

\*Oral Presentation of original research

September, 2016 – North American Congress of Clinical Toxicology 2016  
Boston, Massachusetts

Cole JB, LeRoy JM, Hughes KA, Simpson NS, Nystrom PC, Hick JL and JD Ho. Survival After Self-Poisoning with Hydrogen Sulfide: Implications for Scene Safety

\*Poster Presentation of a case study

May, 2016 – 35<sup>th</sup> Annual Scientific Meeting of the American Pain Society  
Austin, Texas

Keku A, Battles S, Liu AY, Soward A, D'Anza T, Bell K, Galloway L, Nouhan P, Groat J, Gieger-Sedgwick A, Ho J, Jarvis K and SA McLean: Design, Implementation and Initial Results from the Women's Health Study

\*Oral Presentation of original research

October, 2015 – 9<sup>th</sup> European Congress on Violence in Clinical Psychiatry  
Copenhagen, Denmark

J Ho: Introduction of a Conducted Electrical Weapon to Control Violence in a Hospital Setting

\*Oral Presentation of original research

June, 2015 – National Sheriff's Association Annual Conference  
Baltimore, Maryland

J Ho: Body-Worn Cameras Improve the Documentation Accuracy of Law Enforcement Officers

\*Oral Presentation of original research

May, 2015 – 8<sup>th</sup> European Symposium on Non-Lethal Weapons  
Ettlingen, Germany

J Ho: Do Conducted Electrical Weapon Probes Carry Dangerous Bacteria?

\*Poster Presentation of original research

January, 2014 – National Association of EMS Physicians Annual Meeting  
Tucson, Arizona

P Nystrom and J Ho: EMS Fellow/Peace Officer

\*Poster Presentation of novel educational concept

September, 2013 – European Society for Emergency Medicine  
Marseille, France

J Ho: Neurocognitive Effect of Simulated Resistance and Use of Force Encounters on Standardized Field Sobriety Testing

\*Oral Presentation of original research

*FORMAL PRESENTATIONS (continued):*

June, 2013 – 7<sup>th</sup> European Symposium on Non-Lethal Weapons  
Ettlingen, Germany

J Ho: Conducted Electrical Weapon Effectiveness and Incapacitation: Old vs. New Technology

\*Oral Presentation of original research

May, 2013 - Society for Academic Emergency Medicine Annual Meeting  
Atlanta, Georgia

J Ho: The Neurocognitive Effect of Resistance and Simulated Use of Force Encounters on Standardized Field Sobriety Testing

\*Poster Presentation of original research

June, 2012 – International College of Emergency Medicine (ICEM)  
Dublin, Ireland

J Ho: Human Physiology Associated with New Generation Electrical Weapons

\*Oral Presentation of original research

June, 2012 – International College of Emergency Medicine (ICEM)  
Dublin, Ireland

J Ho: Emerging Conducted Electrical Weapon Technology Effectiveness

\*Poster Presentation of original research

May, 2012 – Society for Academic Emergency Medicine Annual Meeting  
Chicago, Illinois

J Ho: Emerging Conducted Electrical Weapon Technology: Is it Effective at Stopping Further Violence?

\*Poster Presentation of original research

May, 2012 – Society for Academic Emergency Medicine Annual Meeting  
Chicago, Illinois

J Ho: Human Physiologic Effects of a New Generation Conducted Electrical Weapon

\*Poster Presentation of original research

February, 2012 – American Academy of Forensic Science Annual Meeting  
Atlanta, Georgia

J Ho: Pilot Comparison of Conducted Electrical Weapon Effectiveness: Old vs. New Technology

\*Oral Presentation of original research

January, 2012 – National Association of EMS Physicians Annual Meeting  
Tucson, Arizona

Calvo D and J Ho: Prehospital Use of Intramuscular Ketamine for Extreme Agitation Management: A Novel Approach to Prevent Unexpected Sudden Death

\*Poster Presentation of original research

October, 2011 - American College of Emergency Physicians Research Forum  
San Francisco, California

J Ho: Comparison of Chest Position and Distance to the Heart in the Induction of Cardiac Stimulation from an Electronic Control Device using Steel versus Carbon Fiber Darts in Pigs

\*Poster Presentation of original research

*FORMAL PRESENTATIONS (continued):*

May, 2011 – 6<sup>th</sup> European Symposium on Non-Lethal Weapons  
Ettlingen, Germany

J Ho: Intermittent Delivery of TASER Device Electric Current as a Method of Secondary Injury Prevention

\*Oral Presentation of original research

May, 2011 – 6<sup>th</sup> European Symposium on Non-Lethal Weapons  
Ettlingen, Germany

J Ho: TASER Electronic Control Devices: The Maturation of a Best Application Practice for the Technology

\*Poster Presentation of proof of concept

February, 2011 – American Academy of Forensic Sciences Annual Meeting  
Chicago, Illinois

J Ho: Effect of Position and Weight Force on Inferior Vena Cava Diameter: Implication for Arrest Related Death

\*Poster Presentation of original research

October, 2010 – European Society for Emergency Medicine  
Stockholm, Sweden

J Ho: Point of View Documentation in the ED: User and Patient Satisfaction

\*Oral Presentation of original research

October, 2010 – European Society for Emergency Medicine  
Stockholm, Sweden

June, 2010 – International Conference on Emergency Medicine  
Singapore

J Ho: Utility of “Point-of-View” Technology in Pre-Hospital Care Education

\*Poster Presentation of original research

September, 2010 – American College of Emergency Physicians Research Forum  
Las Vegas, NV

J Ho: Point of View Documentation in the ED: User and Patient Satisfaction

\*Poster Presentation of original research

March, 2010 – Western Regional Society for Academic Emergency Medicine  
Sonoma, California

J Ho: Human Creatine Kinase Effect From Conducted Electrical Weapons

J Ho: Do Conducted Electrical Weapon Probes Carry Bacteria?

\*Oral Presentations of original research

January, 2010 – National Association of EMS Physicians Annual Meeting  
Phoenix, Arizona

Bahr J, Lapine A and J Ho: The Utility of Point-of-Care Carbon Monoximetry in Fireground Emergency Medical Services Rehabilitation Operations.

\*Poster presentation of original research

September, 2009 – WINFOCUS International Ultrasound Meeting  
Sydney, Australia

Ho J: Ultrasound Use in Conducted Electrical Weapon Research

\*Poster presentation of original research

*FORMAL PRESENTATIONS (continued):*

February, 2009 – American Academy of Forensic Science Annual Meeting

Denver, Colorado

Ho J: Conducted Electrical Weapons – A Review of the Medical Literature

\*Oral presentation of a literature review

February, 2009 – American Academy of Forensic Science Annual Meeting

Denver, Colorado

Ho J: TASER Wound Progression in Two Deployment Modes

\*Poster presentation of original research

January, 2009 - National Association of EMS Physicians Annual Meeting

Jacksonville, Florida

Ho J: Human Cardiorespiratory and Acid/Base Effect of a Civilian Conducted Electrical Weapon

\*Oral presentation of original research

Heegaard W, Hildebrandt D and J Ho: The Prehospital Ultrasound Study: Results of the First 6 months.

\*Poster presentation of original research

January, 2009 – Caribbean Emergency Medicine Congress

Bridgetown, Barbados

Ho J: Introduction of the conducted electrical weapon in the hospital setting: 8 months of use

Dawes D and J Ho: The Physiologic Effects of Multiple Simultaneous Electronic Control Device Discharges

Dawes D and J Ho: The neuro-endocrine effects of the TASER X26 conducted electrical weapon

\*Poster presentations of original research

September, 2008 – European Society of Emergency Medicine

Munich, Germany

And

The National Association of Medical Examiners

Louisville, Kentucky

Ho J: Serum Biomarker Effect of Prolonged TASER® XREP Device Exposure

Dawes D and J Ho: The Effects of the eXtended Range Electronic Projectile (XREP) on Breathing

Dawes D and J Ho: Electrocardiographic evaluation of a long-range electronic control device (ECD) exposure in human volunteers

\*Poster presentations of original research

July, 2008 – Australian College of Emergency Medicine

Newcastle, Australia

Ho J: Cardiac and Diaphragm Echo Evaluation During TASER Device Drive Stun

Dawes D and J Ho: 1) The Effects of the Extended Range Electronic Projectile (XREP) on Breathing; 2) The Effect of a Cross-Chest Electronic Control Device Exposure on Breathing; 3) Echocardiographic Determination of Cardiac Rhythm During Trans-

Thoracic Wireless Conducted Electrical Weapon Exposure

\*Poster presentations of original research

*FORMAL PRESENTATIONS (continued):*

May, 2008 – Heart Rhythm Society Annual Meeting  
San Francisco, California  
And

June, 2008 – CARDIOSTIM  
Nice, France

Ho J: Echocardiographic Evaluation of Human Transcutaneous TASER® Application  
Along the Cardiac Axis

\*Poster presentation of original research

January, 2008 – National Association of EMS Physicians Annual Meeting  
Phoenix, Arizona  
And

June, 2008 – Canadian Association of Emergency Physicians Annual Meeting  
Ottawa, Canada

Ho J: Prolonged TASER® “Drive Stun” Exposure in Humans Does Not Cause Worrisome  
Biomarker Changes

\*Poster presentation of original research

October, 2007 – American College of Emergency Physicians Research Forum  
Seattle, Washington  
and

September, 2007 – Fourth Mediterranean Emergency Medicine Congress  
Sorrento, Italy

Ho J: Ultrasound Measurement of Cardiac Activity During Conducted Electrical  
Weapon Application in Exercising Adults.

\*Poster presentation of original research

September, 2007 – Fourth Mediterranean Emergency Medicine Congress  
Sorrento, Italy

Ho J: Absence of Electrocardiographic Change Following Prolonged Application of a  
Conducted Electrical Weapon in Physically Exhausted Adults.

\*Poster presentation of original research

October, 2007 – American College of Emergency Physicians Research Forum  
Seattle, Washington  
and

September, 2007 – Fourth Mediterranean Emergency Medicine Congress  
Sorrento, Italy

Dawes D, Ho J: Breathing Parameters, Venous Gases, and Chemistries with Exposure to  
a New Wireless Projectile Conducted Electrical Weapon.

\*Poster presentation of original research

October, 2007 – American College of Emergency Physicians Research Forum  
Seattle, Washington  
and

September, 2007 – Fourth Mediterranean Emergency Medicine Congress  
Sorrento, Italy

Dawes D, Ho J: The Neuroendocrine Effects of the TASER X26 Conducted Electrical  
Weapon as Compared to Oleoresin Capsicum.

\*Poster presentation of original research

*FORMAL PRESENTATIONS (continued):*

October, 2007 – American College of Emergency Physicians Research Forum  
Seattle, Washington  
and

September, 2007 – Fourth Mediterranean Emergency Medicine Congress  
Sorrento, Italy

Dawes D, Ho J: 15-Second Conducted Electrical Weapon Exposure Does Not Cause Core Temperature Elevation in Non-Environmentally Stressed Resting Adults.

\*Poster presentation of original research

September, 2007 – Fourth Mediterranean Emergency Medicine Congress  
Sorrento, Italy

Dawes D, Ho J: 15-Second Conducted Electrical Weapon Application Does Not Impair Basic Respiratory Parameters, Venous Blood Gases, or Blood Chemistries.

\*Poster presentation of original research

May, 2007 – Annual Meeting of the Society for Academic Emergency Medicine,  
Chicago, Illinois

Ho J, et al: Physiologic Effects of Prolonged Conducted Electrical Weapon Discharge on Acidotic Adults

\*Poster presentation of original research

May, 2007 – Annual Meeting of the Society for Academic Emergency Medicine,  
Chicago, Illinois

Ho J, et al: Absence of Electrocardiographic Change Following Prolonged Application of a Conducted Electrical Weapon in Physically Exhausted Adults

\*Poster presentation of original research

May, 2007 – Annual Meeting of the Society for Academic Emergency Medicine,  
Chicago, Illinois

Moscato R, Ho J, et al: Physiologic Effects of Prolonged Conducted Electrical Weapon Discharge on Intoxicated Adults

\*Poster presentation of original research

June, 2006 – Annual Meeting of the National Alliance for the Mentally Ill  
Washington, D.C.

Dawes D, Ho J, et al: Beneficial Impact of Conducted Electrical Weapons in the Mentally Ill Population

\*Poster presentation of original research

June, 2006 – CARDIOSTIM 2006 Annual Meeting of International Cardiac  
Electrophysiologists

Nice, France

Ho J, et al: Absence of Electrocardiographic Findings Following TASER Device Application in Human Volunteers

\*Poster presentation of original research

September, 2005 – 2005 Scientific Assembly of the American College of Emergency  
Physicians

Washington, D.C.

Ho J, et al: Deaths in Police Custody: An 8-Month Surveillance Study

\*Poster presentation of original research



*FORMAL PRESENTATIONS (continued):*

September, 2005 – Third Mediterranean Emergency Medicine Congress  
Nice, France

Ho J, et al: Deaths in American Police Custody: A 12-Month Surveillance Study

\*Oral Presentation of original research

January, 2005 – Annual Meeting of the National Association of EMS Physicians,  
Naples, Florida

Bultman L, Ho J, Page D: Safety Restraint Usage Patterns in an Urban EMS System

\*Poster presentation of original research

January, 2005 – Annual Meeting of the National Association of EMS Physicians,  
Naples, Florida

Bultman L, Ho J, Page D: Disposition of Undesignated patients in Urban Minnesota

\*Poster presentation of original research

September, 2004 – Minnesota Ambulance Medical Directors Annual Conference,  
Alexandria, Minnesota

Bultman L, Ho J, Page D: Preliminary Report on Undesignated Patient Disposition in  
Urban Minnesota

\*Oral presentation of original research

January, 2004 – Annual Meeting of the National Association of EMS Physicians,  
Tucson, Arizona

Ansari R, Ho J: Hand Sanitization Rates in an Urban EMS System

\*Oral presentation of original research,

\*Awarded Best Oral Presentation of Original Research

January, 2001 – Annual Meeting of the National Association of EMS Physicians,  
Sanibel Island, Florida

Black C, Ho J: 1 Paramedic vs. 2-How Often is a Second Paramedic Utilized in an Urban  
EMS System?

\*Poster presentation of original research

September, 1997 – Minnesota Ambulance Medical Directors Annual Conference,  
Alexandria, Minnesota

Ho J: Preliminary Report on the Time Saved with the Use of Emergency Warning Lights  
and Siren While Responding to Requests for Medical Aid in a Rural Environment.

\*Oral presentation of original research

May, 1997 – Annual Meeting of the Society for Academic Emergency Medicine,  
Washington, D.C.

Ho J: Time Saved with the Use of Emergency Warning Lights and Sirens While  
Responding to Requests for Medical Aid.

\*Poster presentation of original research

January, 1997 – Mid-Year Scientific Meeting of the National Association of EMS  
Physicians, Lake Tahoe, Nevada

Ho J: Time Saved with the Use of Emergency Warning Lights and Sirens While  
Responding to Requests for Medical Aid.

\*Oral presentation of original research

\*Awarded Best Oral Presentation of Original Research

*FORMAL PRESENTATIONS (continued):*

November, 1996 – Twin Cities Metropolitan 911 Board, St. Paul, Minnesota

Ho J: Final Report on the Time Saved with the Use of Emergency Warning Lights and Sirens While Responding to Requests for Medical Aid in Minneapolis.

\*Oral presentation of original research

May, 1996 – Annual Meeting of the Society for Academic Emergency Medicine, Denver, Colorado

Ho J: Automatic External Defibrillation and its Effects on Neurologic Outcome in Cardiac Arrest Patients in an Urban Two-Tiered EMS System.

\*Poster presentation of original research

May, 1996 – Annual Meeting of the Society for Academic Emergency Medicine, Denver, Colorado

Ho J: The Utility of the Routine Swimmers View Cervical Radiograph in Addition to the Cross Table Lateral Cervical Radiograph in Detecting Cervical Spine Injury in Critical Trauma Patients.

\*Poster presentation of original research

#### *INVITED PRESENTATIONS:*

January, 2018 - National Association of EMS Physicians Medical Director Course San Diego, California

Ho J: State of the Art: EMS/Law Enforcement Interface

\*Oral presentation of area of expertise

November, 2017 – Surgery Interest Group Guest Speaker at St. Olaf College Northfield, Minnesota

Ho J: A Career in Emergency Medicine

\*Oral presentation to student association group

October, 2017 – Watkins Ambulance Service Continuing Education Update Watkins, MN

Ho J: Conducted Electrical Weapon Education for EMS

\*Oral presentation of area of expertise

October, 2017 – UK National Police Chiefs' Council Meeting on TASER Weapons London, England

Ho J: The State of Conducted Electrical Weapon Knowledge

\*Oral presentation of area of expertise

September, 2017 – Combined EMS, Law Officer and Nursing Education Granite Falls, MN

Litchfield, MN

Ho J: Emergency Health/Peace Officer Holds

\*Oral presentation of area of expertise

June, 2017 – Police Use of Force in Today's World Conference Miami-Dade, FL

Ho J: The Science of Safer Restraint

\*Oral presentation of area of expertise

*INVITED PRESENTATIONS (continued):*

May, 2017 – MN Hospital Association's Hospital Quality and Patient Safety Learning Network Day Meeting  
Bloomington, MN  
Ho J: The MN Dept. of Health's Law Enforcement and Healthcare Coalition Work  
\*Oral presentation of work overview of a specialty coalition group

January, 2017 – National Association of EMS Physicians Annual Meeting  
New Orleans, LA  
Ho J: Esoterica: Field Amputations  
\*Oral presentation of area of expertise

January, 2017 – National Association of EMS Physicians Medical Director Course  
New Orleans, LA  
Ho J: State of the Art: EMS/Law Enforcement Interface  
\*Oral presentation of area of expertise

December, 2016 – Institute of Forensic Medicine, Paris-Lodron University 2<sup>nd</sup> Symposium on the Pathophysiological Aspects of Electroshock Weapons  
Salzburg, Austria  
Ho J: The State of Conducted Electrical Weapon Knowledge  
\*Oral presentation of area of expertise

October, 2016 – 5<sup>th</sup> International Conference on Violence in the Health Sector  
Dublin, Ireland  
Ho J: Clinician-Led Initiatives in Hospital Security: A Paradigm Shift  
\*Oral presentation of areas of expertise

October, 2016 - International Association of Chief's of Police Annual Meeting  
San Diego, California  
Ho J: Neurocognitive Changes Associated with Law Enforcement Use of Force – Implications for the Miranda Warning  
\*Oral presentation of original research and areas of expertise

October, 2016 – MN Emergency Nurse Association Cornerstone Conference  
Minneapolis, MN  
Ho J: Holds and Restraints for Healthcare Personnel  
\*Oral presentation of areas of expertise

June, 2016 – Minnesota Rural Healthcare Conference  
Duluth, Minnesota  
Ho J: The Community Service Officer-Paramedic Program  
\*Oral presentation of areas of expertise

April, 2016 – Rockswold Scholar Academic Grand Rounds at St. Olaf College  
Northfield, Minnesota  
Ho J: Dr. Cop: The Crossroads of Medicine and Law Enforcement  
\*Oral Grand Rounds presentation

October, 2015 – International Association of Chief's of Police Annual Meeting  
Chicago, Illinois  
Ho J: The Community Service Officer-Paramedic Program  
\*Oral presentation of areas of expertise

*INVITED PRESENTATIONS (continued):*

October, 2015 – Lompoc Valley Medical Center Executive Rounds  
Lompoc, California  
Ho J: Occupational Violence in Healthcare  
\*Oral presentation of areas of expertise

September, 2015 – ASIS International Annual Conference  
Anaheim, California  
Ho J: A Comprehensive Use of Force Model in Healthcare  
\*Oral presentation of areas of expertise

July, 2015 – Institute of Forensic Medicine, Paris-Lodron University 1<sup>st</sup> Symposium  
on the Pathophysiological Aspects of Electroshock Weapons  
Salzburg, Austria  
Ho J: Pathophysiological Effects of Conducted Electrical Weapons on Humans and  
Animals: A Study Review  
\*Oral presentation of areas of expertise

March, 2015 – Queen Mary University TASER Expert Panel Discussion  
London, England  
Ho J: The History of TASER Weapons Human Testing and Research  
\*Invited panelist to testify on areas of expertise

March, 2015 – Wentworth-Douglass Hospital Grand Rounds  
Dover, New Hampshire  
Ho J: Comprehensive Use of Force in Hospital Security  
\*Oral presentation of areas of expertise

December, 2014 – Meeker Memorial Hospital Grand Rounds  
Litchfield, Minnesota  
Ho J: Occupational Violence in Healthcare  
\*Oral presentation of areas of expertise

November, 2014 – MN “Toward Zero Deaths” Annual Responder Conference  
Duluth, Minnesota  
Ho J: After the Crash: Critical Decisions  
\*Oral presentation of effective decision making and considerations for field care of crash  
victims and maintenance of investigation integrity

November, 2014 – MN Emergency Nurses Association  
St. Paul, Minnesota  
Ho J: Civil Rights in Personal, Professional and Police Interactions  
\*Oral presentation of issues of conflict between emergency healthcare and law  
enforcement

October, 2014 – International Association of Hospital Safety and Security Annual  
Meeting  
Miami, Florida  
Ho J: Comprehensive Use of Force Model in a Healthcare System  
\*Oral presentation of use of force issues within a healthcare environment

*INVITED PRESENTATIONS (continued):*

March, 2014 – Rice Memorial Hospital and Clinics Grand Rounds  
Willmar, Minnesota

Ho J: Occupational Violence in Healthcare

\*Oral presentation of areas of expertise

September, 2014 – 28<sup>th</sup> Annual MN EMS Medical Director Conference, Alexandria,  
Minnesota

Ho J: Civil Rights in Emergency Medicine

\*Oral presentation of common areas for conflict during patient care

March, 2013 – Minnesota Association of Physician Assistants Annual Meeting

Ho J: Excited Delirium

\*Oral presentation of area of expertise

January, 2013 – Hennepin County Medical Center EMS Update  
Minneapolis, Minnesota

Ho J: Civil Rights in Personal, Professional and Police Interactions

\*Oral presentation of issues of conflict between emergency healthcare and law  
enforcement

December, 2013 – International Association of Healthcare Safety and Security Upper  
Midwest Chapter Meeting

Ho J: TASER Weapons in Healthcare Settings

\*Oral presentation of Healthcare Conducted Electrical Weapon Deployment Strategy

December, 2013 – Minneapolis Chamber of Commerce-Leadership Twin Cities,  
Healthcare Access Day

Minneapolis, Minnesota

Ho J: Access to Healthcare-Emergency Medicine and EMS Perspectives

\*Oral presentation of areas of expertise

November, 2013 – Essentia St. Mary's Medical Center Trauma Grand Rounds  
Duluth, Minnesota

Ho J: Occupational Violence and the Active Shooter

\*Oral presentation of areas of expertise

October, 2013 – International Association of Chief's of Police Physician Section  
Philadelphia, Pennsylvania

Dawes D and J Ho: The Neurocognitive Effects of Simulated Use of Force

\*Oral presentation of state of the art clinical and field information

October, 2013 – International Association of Chief's of Police Physician Section  
Philadelphia, Pennsylvania

Dawes D and J Ho: A Comparative Study of Conducted Electrical Weapon  
Incapacitation During a Goal-Directed Task

\*Oral presentation of state of the art clinical and field information

October, 2013 – Emergency Physicians Professional Association Grand Rounds  
Minnetonka, Minnesota

Ho J: Occupational Violence in Emergency Medicine

\*Oral presentation of areas of expertise

*INVITED PRESENTATIONS (continued):*

September, 2013 – North American Congress of Clinical Toxicology  
Atlanta, Georgia

Ho J: Pathophysiology of Agitated Delirium and How to Really Make Things Worse  
\*Oral presentation of state of the art clinical information

September, 2013 – 28<sup>th</sup> Annual MN EMS Medical Director Conference  
Alexandria, Minnesota

Ho J: Community Service Officer Paramedic – A Novel Solution to Rural ALS  
\*Oral presentation of a novel EMS program

July, 2013 – Canadian Coroner's Inquest  
Toronto, Canada

Ho J: Testimony  
\*Oral presentation of sworn testimony on numerous research findings involving TASER devices

July, 2013 – Oregon Health Sciences University Emergency Medicine Grand Rounds,  
Portland, Oregon

Ho J: Occupational Safety for Emergency Medicine  
Ho J: Conducted Electrical Weapons: A Primer for the Clinician  
\*Oral presentations of areas of expertise

March, 2013 – St. Francis Regional Medical Center Emergency Medicine Rounds,  
Shakopee, Minnesota

Ho J: Civil Rights in Emergency Medicine  
\*Oral presentation of common areas for conflict during patient care

March, 2013 – Willmar EMS Continuing Education, Willmar, Minnesota  
Ho J: Confidentiality and the Law

\*Oral presentation of HIPPA confidentiality exclusions

February, 2013 – Hennepin County Medical Center Emergency Nursing Continuing  
Education, Minneapolis, Minnesota

Ho J: Interactions with the Law Enforcement Community  
\*Oral presentation of common areas for conflict during patient care

January, 2013 – Special Committee Inquiry into the use of Conducted Energy  
Weapons and to Audit Selected Police Complaints  
Victoria, British Columbia, Canada

Ho J: Human Research and Safety of Conducted Electrical Weapons and Appropriate  
Societal Use  
\*Testimony to Canadian Parliament Special Legislative Committee, 39<sup>th</sup> Parliament, 4<sup>th</sup>  
Session

November, 2012 – HealthPartners Emergency Medicine and Trauma Update:  
Beyond the Golden Hour  
St. Paul, Minnesota

Ho J: Active Shooter Situations: Work Safety Considerations  
\*Opening plenary presentation of best practice recommendations

*INVITED PRESENTATIONS (continued):*

October, 2012 – New Zealand Police, Australasian ECD Best Practice Conference  
Wellington, New Zealand

Ho J: Exploring the Medical Risks and Implications of ECD Use

\*Oral presentation of ECD effects based on current research

May, 2012 – MN Department of Corrections

Shakopee, Minnesota

Ho J: Custodial Death Issues

\*Oral presentation of Arrest-Related Death causes, prevention and awareness

May, 2012 – MN State Colleges and University Mental Health Symposium,  
Ridgewater College, Willmar, Minnesota

Ho J: Excited Delirium Syndrome and Sudden Death

\*Oral presentation for continuing medical education

November, 2011 – Southern Maine Healthcare System

Biddeford, Maine

Ho J: TASER Devices in the Healthcare Setting

\*Oral presentation for the consideration of system security improvement

October, 2011 – United States Embassy

Belgrade, Serbia

Ho J: Arrest Related Death and Use of Force

\*Oral presentation for the development of Turkish Police Forces

June, 2011 – United States Embassy

Ankara, Turkey

Ho J: Arrest Related Death and Use of Force

\*Oral presentation for the development of Turkish Police Forces

February, 2011 – Northfield Hospital Medical Staff Grand Rounds

Ho J: Excited Delirium Syndrome and Arrest-Related Death

\*Oral presentation for continuing medical education

December, 2010 – Minnesota Sheriff's Association Winter Conference

Alexandria, Minnesota

Ho J: Use of Force Research Award

\*Oral presentation on receiving a law enforcement based national research award

February, 2010 – HCMC EMS Trauma Symposium

Minneapolis, Minnesota

Ho J: Arrest-Related Death and the EMS Provider

\*Oral presentation of Arrest-Related Death causes, prevention and awareness

February, 2010 – Douglas Amdahl Inn of Court

Minneapolis, Minnesota

Ho J: The Effect of Homeless Persons on the Healthcare System

\*Invited panel member

*INVITED PRESENTATIONS (continued):*

November, 2009 – MN Symposium on Terrorism and Emergency Preparedness  
Brooklyn Park, Minnesota

Ho J: TEMPO™ Tactical Emergency Medical Peace Officer Introduction

\*Oral presentation of new instructional course and proof of concept

October, 2009 – National Association of Internal Affairs Investigator Meeting  
Gatlinburg, Tennessee

Ho J: Arrest-Related Deaths Issues for Investigators

\*Oral presentation of Arrest-Related Death causes, prevention and awareness

July, 2009 – TASER International Tactical Conference  
Scottsdale, Arizona

Ho J: Human Research Update 2008-2009

\*Oral presentation of research team accomplishments over a 12-month period

June, 2009 – Waukesha County Custodial Death Conference  
Pewaukee, Wisconsin

Ho J: Sudden Death and the TASER Device

\*Oral presentation of academic issues and research to local medical and law enforcement leadership

May, 2009 – 5<sup>th</sup> European Symposium on Non-Lethal Weapons  
Ettlingen, Germany

Ho J: The State of Current Human Research and Electronic Control Devices (ECDs)

\*Oral presentation to European military and law enforcement leadership on the current research in this subject area

May, 2009 - Greek Government Official Presentation  
Athens, Greece

Ho J: The TASER Device Human Research Update

\*Oral presentation of current medical research involving TASER devices

March, 2009 – Lafourche Parish Sudden Death Conference  
Lafourche Parish, Louisiana

Ho J: Arrest-Related Death

\*Oral presentation of Arrest-Related Death causes, prevention and awareness.

December, 2008 – Meeker County Sheriff's Office Prisoner Treatment Training  
Litchfield, Minnesota

Ho J: Custodial Arrest-Related Death Physiology for Law Enforcement

\* Oral presentation of Custodial Death causes, prevention and awareness.

October, 2008 – Association of Training Officers of Minnesota Fall Conference  
Plymouth, Minnesota

Ho J: Custodial Death Issues for Law Enforcement

\*Oral presentation of Custodial Death causes, prevention and awareness.

October, 2008 – LifeLink III Trauma Tactics Conference  
Red Wing Minnesota

Ho J: Custodial Death Issues for EMS Responders

\*Oral presentation of Custodial Death causes, prevention and awareness.



*INVITED PRESENTATIONS (continued):*

October, 2008 – Overland Park Public Safety Presentation  
Overland Park, Kansas

Ho J: Sudden Arrest Related Death and The TASER Device

\*Oral presentation of sudden death current medical research involving TASER devices

September, 2008 – Multijurisdictional Law Enforcement Authority Presentation  
(Germany, Austria, Switzerland)

Munich, Germany

Ho J: The TASER Device Human Research Update

\*Oral presentation of current medical research involving TASER devices

July, 2008 – Australian Law Enforcement Official Presentation

Sydney, Australia

Ho J: The TASER Device Human Research Update

\*Oral presentation of current medical research involving TASER devices

May, 2008 – Braidwood Commission

Vancouver, Canada

Ho J: Testimony

\*Oral presentation of sworn testimony on numerous research findings involving TASER devices

May, 2008 – Bloomington Police Department Citizen Academy Night

Bloomington, Minnesota

Ho J: TASER Devices – An Evening With The Experts

\*Oral presentation of current medical research involving TASER devices

April, 2008 – MN State Patrol Drug Recognition Evaluator School

White Bear Lake, Minnesota

Ho J: Human Function and Physiology

\*Oral presentation of core course content topic for law enforcement officials

January, 2008 – Association of Training Officers of Minnesota Winter Conference

Minneapolis, Minnesota

Ho J: Custodial Death Issues for Law Enforcement

\*Oral presentation of Custodial Death causes, prevention and awareness.

November, 2007 – 2nd Annual Conference of the Institute for the Prevention of In  
Custody Death

Las Vegas, Nevada

Ho J: Human Research on Conducted Electrical Weapons

\*Oral presentation of past, present and future human research involving electrical  
weaponry

October, 2007 – German Military and National Police Scientific Annual Meeting  
Berlin, Germany

Ho J: Conducted Electrical Weapons: Update of Current Research

\*Oral presentation to the German National military and police scientific community on  
current research in this subject area

*INVITED PRESENTATIONS (continued):*

August, 2007 – Baltimore Medical Examiner's Office In-House Training

Baltimore, Maryland

Ho J: The State of Current Human Research and Electronic Control Devices(ECDs)

\*Oral presentation to forensic scientific community on the current research in this subject area

June, 2007 – 29<sup>th</sup> Annual BioElectroMagnetic Society Meeting  
Kanazawa, Japan

Ho J: The State of Current Human Research and Electronic Control Devices(ECDs)

\*Oral presentation to an international scientific community on the current research in this subject area

May, 2007 – 4<sup>th</sup> European Symposium on Non-Lethal Weapons  
Ettlingen, Germany

Ho J: The State of Current Human Research and Electronic Control Devices(ECDs)

\*Oral presentation to European military and law enforcement leadership on the current research in this subject area

March, 2007 – City Council Task Force Meeting  
Palo Alto, California

Ho J: TASER Devices and Human Effects – What can research tell us?

\*Oral testimony to city officials and the lay public of current research as they debate moving towards deployment of conducted electrical weapons in their city

March, 2007 – MN Reserve Police Officer Association Annual Meeting  
Brooklyn Park, Minnesota

Ho J: Custodial Death and Intermediate Weapons

\*Oral presentation to membership about the custodial death phenomenon

January, 2007 – Minnesota Bureau of Criminal Apprehension  
St. Paul, Minnesota

Ho J: Medical Considerations in Sudden Custodial Death Investigations

\*Oral presentation to state investigators about the custodial death phenomenon

December, 2006 – An Garda Siochana (Irish National Police Agency)  
Dublin, Ireland

Ho J: Conducted Electrical Weapon Research Update

\*Oral presentation of pertinent safety research given to the police administration as they move towards deployment of conducted electrical weapons in Ireland

December, 2006 – Accident and Emergency Physicians Association of Ireland  
Dublin, Ireland

Ho J: Comprehensive Analysis of Custodial Death and Conducted Electrical Weapons

\*Oral presentation of the custodial death phenomenon and how it relates to the introduction of electrical weapons into society

November, 2006 – Meeker County Sheriff's Office Use of Force Update  
Litchfield, Minnesota

Ho J: Electronic Control Device and Use of Force Physiology for Law Enforcement

\*Oral Presentation of human response to electronic control device applications

*INVITED PRESENTATIONS (continued):*

November, 2006 – 1<sup>st</sup> Annual Conference of the Institute for the Prevention of In Custody Death

Las Vegas, Nevada

Ho J: Human Research on Conducted Electrical Weapons

\*Oral presentation of past, present and future human research involving electrical weaponry.

November, 2006 – Grand Rounds for the Faculte' de Medecine Rene Descartes Paris 5 School of Medicine

Paris, France

Ho J: Conducted Electrical Weapon Controversies and Research

\*Oral presentation of experience and research to prepare their providers for patient care issues as France begins to deploy electrical weapons to their police forces.

September, 2006 – 21<sup>st</sup> Annual MN EMS Medical Director Conference

Alexandria, Minnesota

Ho J: Issues of In Custody Death for EMS Providers

\*Oral presentation on the interface of EMS providers with the phenomenon of sudden, unexpected death of persons in law enforcement custody.

June, 2006 – US Department of Defense and National Institute of Justice Human Electro-Muscular Incapacitation Device Conference

Quantico, Virginia

Ho J: Conducted Electrical Weapon Human Research Update

\*Oral presentation on the state of research involving electronic weapons and their effects on human subjects.

May, 2006 – TASER International Domestic Tactical Conference

Las Vegas, Nevada

Ho J: TASER Device Medical Research Update

\*Oral presentation of current medical research specifically involving TASER devices

2005-2007 – Minneapolis Police Crisis Intervention Tactics Training

Various locations within Minnesota

Ho J: Custodial Death in the Mentally Ill Population

\*Oral presentation at a recurring training class sponsored by the Barbara Schneider Foundation to train law enforcement officers in specific tactics for dealing with mentally ill subjects.

*INVITED PRESENTATIONS (continued):*

November, 2012 – Florida (Florida Department of Law Enforcement)  
August, 2011 – California (Irvine Police Department)  
February, 2010 – Michigan (Michigan State Police Academy)  
June, 2009 – California (Fairfield Police Department)  
April, 2009 – Minnesota (Bloomington Police Department)  
March, 2009 – California (Los Angeles County Sheriff's Office)  
April, 2008 – California (California Highway Patrol)  
November, 2007 – Hawaii (Honolulu Police Department)  
September, 2007 – Canada (Vancouver Police Department)  
March, 2007 – Virginia (Prince William County Sheriff's Office)  
December, 2006 – Canada (Toronto Police Department)  
November, 2006 – California (Oakland Police Department)  
October, 2006 – Illinois (Chicago Police Department)  
August, 2006 – Colorado (Colorado Springs Police Department)  
July, 2006 – Oregon (Portland Bureau of Police)  
June, 2006 – Ohio (Cleveland Police Department)  
June, 2006 – Nice, France (CARDIOSTIM/French National Police)  
March, 2006 – California (Santa Ana Police Department)  
February, 2006 – California (San Diego County Sheriff's Office)  
December, 2005 – Scottsdale, Arizona (TASER International)  
October, 2005 – Scottsdale, Arizona (TASER International)  
Ho J: Arrest Related Deaths, Excited Delirium and TASER Devices  
\*Recurring Lecture Series: TASER Police Executive Conference; Oral presentation of theories of In Custody Death based on history and medical literature addressing concerns of the roles that TASER devices play in this phenomenon

December, 2005 – NM Police Chief Association, Albuquerque, New Mexico  
November, 2005 – Public Information Forum, Gary, Indiana  
September, 2005 – International Association of Chiefs of Police, Miami, Florida  
August, 2005 – Kansas Law Enforcement Conference, Topeka, Kansas  
July, 2005 – Houston Area Public Safety Forum, Houston, Texas  
June, 2005 – PRIMA Annual Meeting, Milwaukee, Wisconsin  
June, 2005 – San Jose Police Management Meeting, San Jose, California  
May, 2005 – National League of Cities Public Safety Council, Reno, Nevada  
Ho J: In Custody Death Issues  
\*Oral presentation of medical literature, research data and experience

April, 2005 – TASER International Domestic Tactical Conference  
Scottsdale, Arizona  
Ho J: In Custody Death and Law Enforcement Considerations  
\*Oral presentation of medical literature, research data and experience

June, 2004 – Metro Atlanta Police Chiefs Association  
Atlanta, Georgia  
Ho J: Medical Considerations for In-Custody Deaths  
\*Oral presentation of medical literature and experience

December, 2002 - Present – Hopkins High School (ISD 270) Healthcare Career Class  
Hopkins, Minnesota  
Ho J: A Career in Emergency Medicine  
\*Oral presentation given annually to high school seniors considering careers in medicine

*INVITED PRESENTATIONS (continued):*

September, 2002 – Annual Meeting of the International Rescue Association  
Bloomington, Minnesota

Ho J: Ballistic Considerations for Field EMS Personnel

\*Oral presentation of continuing medical education

May, August, September and October, 2000 – Annual Meetings of the Hennepin County Medical Center Trauma Team; Minnesota ACEP; Minnesota Ambulance Medical Directors; and LifeLink III Prehospital Providers; Bloomington, Brainerd, Alexandria and Red Wing, Minnesota

Ho J: Rescue on Interstate 35

\*Oral presentations of a case study

September, 1999 – EMS Personnel Instruction at Republican Trauma Hospital Chisinau, Moldova

Heegaard W, Ho J: Automatic External Defibrillation

\*Oral presentation of continuing medical education and research proposal

May, 1998 – Trauma Grand Rounds at Careggi Medical and Trauma Center, Florence, Italy

Ho J: American Emergency Medical Services

\*Oral Grand Rounds presentation

May, 1998 – Trauma Grand Rounds at Republican Trauma Hospital Chisinau, Moldova

Ho J: Advances in Trauma Care

\*Oral Grand Rounds presentation

January, 1998 – Minnesota Tactical EMS Conference

Minneapolis, Minnesota

Ho J: Firearm Injuries

\*Oral presentation of continuing medical education

January, 1998 – Augsburg College Physician Assistant Training Program

Minneapolis, Minnesota

Ho J: An Introduction to Emergency Medical Services

\*Oral presentation of continuing medical education

January, 1997 – Emergency Medicine Grand Rounds at Loma Linda University Loma Linda, California

Ho J: Controversies in EMS

\*Oral Grand Rounds presentation

February, 1996 – Annual Meeting of the Arrowhead EMS Association

Duluth, Minnesota

Ho J: Initial Patient Assessment – Everything You Need to Know

\*Oral presentation of continuing medical education

August, 1995 – The University of Costa Rica College of Medicine National Symposium on Emergency Health Care

San Jose, Costa Rica

Ho J: Advances in Cardiac Care and Emergency Management of HIV Patients

\*Oral presentations of continuing medical education

***INVITED PRESENTATIONS (continued):***

May, 1995 – Clinical-Pathologic Case Competition at the Annual Meeting of the Society for Academic Emergency Medicine, San Antonio, Texas

Ho J: Cutaneous Actinomycosis

\*Oral presentation of a case study

*HENNEPIN COUNTY MEDICAL CENTER ACADEMIC LECTURES:*

- 2013 to Present: Emergency Department Holds and HIPPA – nurse education
- 2012 to Present: Emergency Department Legal Issues – resident education
- 2010 to Present: EM Interactions with Police – resident education
- 2008: Geriatric Trauma and Vulnerable Adults – resident education
- 2007 to Present: Behavioral Emergencies – paramedic student education
- November, 2006: In-Custody Death Events – paramedic education
- 2003 to Present: The Violent Patient – resident education
- 2002 to Present: The Difficult Patient Encounter – resident education
- 1996 to Present: Medical Student Introduction to the EMS System
- 1996 to Present: Residency Update on the State of EMS
- September, 1995: Allergic Reactions – paramedic education
- April, 1995: Basic Head Trauma Management – paramedic education
- March, 1995: Emergency Cardiac Care Update – paramedic education
- March, 1995: Adrenal Emergencies – paramedic education
- October, 1994: Ophthalmologic Emergencies – resident education
- September, 1994: Fluid Resuscitation in Thermal Injuries – resident education
- May, 1994: Cardiopulmonary Emergencies – paramedic education
- October, 1993: Cocaine Related Chest Pain – resident education
- May, 1993: Rectal Foreign Bodies – resident education
- April, 1993: Acute Pancreatitis – resident education

*PROFESSIONAL ASSOCIATIONS:*

- American College of Emergency Physicians – Fellow
- American Academy of Emergency Medicine - Fellow
- American Board of Emergency Medicine – Certified Diplomate
- American Board of Emergency Medicine – Senior Oral Certification Examiner
- American Board of Emergency Medicine – Certification Exam Item Writer
- Society of Academic Emergency Medicine - Member
- National Association of EMS Physicians – Member
- International Association of Chiefs of Police – Member
- National Sheriffs' Association - Member
- Fraternal Order of Police – Member
- MN Professional Peace Officer Association – Member
- MN Asian Peace Officer Association - Member
- Archibald Bush Foundation – Senior Medical Fellow
- Hopkins ISD 270 ProPEL Program - Professional Mentor

## *COMMITTEE EXPERIENCE*

### Boards of Directors

- 2014: Minnesota EMS Regulatory Board (Board Member, EMS Programs)
- 2014-2016: MN Chapter, American College of Emergency Physicians (Secretary/Treasurer)
- 2009 to 2016: MN Chapter, American College of Emergency Physicians (Director at Large)
- 2006 to Present: MN EMS Medical Directors Education Association, Inc. (President and Chair)
- 2004 to 2006: MN EMS Medical Directors Education Association, Inc. (Secretary/Treasurer)
- 1996 to 1997: Minnesota Chapter, American College of Emergency Physicians (Director at Large)
- 1995 to 1998: Minnesota Association of EMS Physicians (Board Member)

### Chair

- 2012 to 2015: Hennepin County EMS Council/Medical Director Subcommittee
- 2010 to Present: TASER International Scientific Medical Advisory Board
- 2002 to 2004: Hennepin County EMS Council/Medical Director Subcommittee
- 2000 to Present: Minnesota EMS Medical Director Association
- 1998 to 2002: Hennepin County EMS Council/Paramedic Subcommittee
- 1997 to 2000: Minnesota Chapter, American College of Emergency Physicians EMS Committee
- 1996 to 1997: Hennepin County Medical Center Patient Retention Task Force
- 1996 to 1998: Hennepin County EMS Council/Paramedic Education Task Force

### Committee Member

- 2016 to Present: Hennepin Health System Traumatic Brain Injury Center Executive Committee
- 2016 to Present: MN Hospital Association Law Enforcement and Healthcare Violence Coalition
- 2016 to Present: National Association of EMS Physicians Workgroup for Policy Development to transport armed patients
- 2015 to 2016: Hennepin Health System Chief of Surgery Search Committee
- 2015 to Present: Minnesota Department of Health State Trauma Advisory Council/Emergency Medical Services Regulatory Board Joint Policy Committee
- 2014 to Present: Minnesota EMS Regulatory Board Executive Committee
- 2014 to Present: MN Emergency Care Coalition
- 2014 to Present: Hennepin County Medical Center Graduate Medical Education Committee
- 2014: Hennepin Health System Center for Innovation Development Committee
- 2014: Hennepin Health System Chief Clinical Officer Search Committee
- 2014: Hennepin Health System Chief of Professional Services Search Committee
- 2012: Hennepin Health System Physician Code of Conduct Committee
- 2012: Hennepin County EMS Council/Executive Committee
- 2012: Hennepin County EMS Council/Medical Standards Committee
- 2012: Hennepin County Medical Center Strategic Outreach Committee
- 2011: Penn State University/National Institute of Justice Less-Lethal Device Technology Work Group Expert Panel on Excited Delirium Syndrome
- 2011: Arizona State University/National Institute of Justice TASER Neurocognitive Study Advisory Committee (Dr. Michael White, Principal Investigator)



*COMMITTEE EXPERIENCE (continued):*

- 2011 to Present: American College of Emergency Physicians Section on Forensic Medicine
- 2011: Principal Search Committee, North Junior High School, Hopkins ISD #270, Minnetonka, MN
- 2011: National Institute of Standards and Technology Electroshock Weapons Test and Measurement Workshop
- 2009 to 2017: American Academy of Emergency Medicine Clinical Practice Committee
- 2008 to 2011: American College of Emergency Physicians Task Force on Excited Delirium
- 2006 to 2007: Hospital Security Task Force, Hennepin County Medical Center
- 2003 to Present: American College of Emergency Physicians Section on Tactical EMS
- 2000 to 2001: Minneapolis Civil Disturbance Planning Committee
- 1999 to Present: Minnesota Annual Ambulance Medical Director Retreat Planning Committee
- 1997 to 2000: LifeLink III Aeromedical Transport Medical Advisory Committee
- 1997 to Present: Hennepin County EMS Council Medical Standards Committee
- 1997 to Present: Hennepin County EMS Council
- 1995 to 1998: Hennepin County EMS Council/Paramedic Subcommittee
- 1995 to 1996: Hennepin County Medical Center Trauma Multidisciplinary Committee

*LICENSURE & CERTIFICATION:*

- Minnesota Peace Officers Standards and Training Board, License #18203
- Fellow of the American College of Emergency Physicians #355932
- Fellow of the American Academy of Emergency Medicine #12395
- Diplomate of the American Board of Emergency Medicine-1997  
Recertified 2006, 2016
- Diplomate of the National Board of Medical Examiners-1994
- Minnesota Medical License #36894
- TASER Operator certified
- TASER Instructor certified
- Minnesota Emergency Vehicle Operator Certification
- Minnesota Police Pursuit Vehicle Operator Certification
- Minnesota Police Pursuit Intervention Tactics (PIT) Certification
- Standardized Field Sobriety Testing Certification
- Tactical EMS/SWAT Physician Certification

*REFERENCES:*

- Excellent references provided upon request